

March 2, 1875.

Osbert Salvin, Esq., F.R.S., in the Chair.

The following extract was read from a letter addressed to the Secretary by Dr. W. Peters, F.M.Z.S.

“Dr. Gray has figured, in the ‘Proceedings’ for 1873 (p. 393), a skull of a species of Tortoise of the genus *Sternotherus*, but does not give a name to the species.

“It will interest you to know that the skull in question belongs to *Sternotherus niger*, Dum. et Bibr., the habitat of which was not previously known. MM. Duméril and Bibron supposed that it might be from Madagascar; but no traveller has found it there, and I have now received the species from the Cameroons, West Africa, where it was found by Dr. Reichenow and Prof. Buchholtz.”

The following papers were read:—

1. Descriptions of some rare Eggs of Australian Birds.

By EDWARD P. RAMSAY, C.M.Z.S.

[Received February 22, 1875.]

1. PTILONORYNCHUS HOLOSERICUS, Kuhl; Gould, B. of Austr. vol. iv. pl. 10.

The eggs of this species bear a close resemblance to those of the Spotted Bower-bird (*Chlamydodera maculata*) both in form and colour; and when those of the Cat bird (*Ælurædus smithii*) and of the Regent bird (*Sericulus melinus*) are made known to us, I have no doubt that they also will be found to have similar peculiar and characteristic markings.

The eggs of the Satin bird are slightly larger than those of the Spotted Bower-bird, more strongly marked if any thing, have the same thin delicate shell and elongated form; in length they average 1·6 inch, in breadth 1·1 inch, are of a light rich cream-colour, and are marbled all over, more closely at the thicker end, with short wavy irregular lines of deep olive-brown, umber, and sienna. These markings are peculiar in form, some resembling ill-shaped figures of fives, eights, and sevens, others being long and wavy, but few if any encircling the shell altogether. These lines are thick in proportion to their length, and in places are looped, curled, and twisted in various directions, often crossing each other at right angles.

2. *EUROSTOPODUS ALBOGULARIS*, Vig. ; Gould, B. of Aust. ii. pl. vii.

I found this species of Goatsucker tolerably plentiful in certain localities in Queensland, near the headwaters of the Mary river, when I was procuring specimens of *Ceratodus* in 1873. During the daytime they are seldom if ever seen, except when flushed ; and in every instance it was on the sides of strong thickly timbered ridges that we met with them. For about half an hour just before dusk they frequent open glades and paddocks, and may then be procured on the wing. Their flight is very swift and noiseless.

Their single egg is placed on the ground, usually near a small tree or large stone, and is very difficult to discover, although the bird may have risen only a few feet in front of you. It is of a pale cream-colour, spotted sparingly over the surface with round and oval-shaped dots of deep blackish brown, with a few spots of blackish slate-colour appearing as if beneath the surface of the shell.

The length of the egg varies from 1·4 to 1·5 inch, the breadth from 1·04 to 1·01, an average specimen being 1·41 by 1·03.

3. *EUROSTOPODUS GUTTATUS*, Vig. & Horsf. ; Gould, B. of Aust. vol. ii. pl. 8.

The Spotted Goatsucker lays an egg similar to that of *Eurostopodus albugularis*. It is, however, smaller and has fewer markings ; the ground-colour is of a greenish white, glossy, and sparingly marked with round and a few oval-shaped dots of black and blackish slate-colour, which latter appears as if beneath the surface of the shell. The length is 1·38 inch, the breadth 1 inch.

Like the preceding species, this bird selects a thinly timbered stony ridge, where on the bare ground it deposits its egg without making any nest or disturbing any of the stones or gravel in the vicinity. The only specimens I possess were taken by James Ramsay, Esq., near the Merule Creek, in the Riverina district, in the southern portion of New South Wales.

4. *CAPRIMULGUS MACROURUS*, Horsfield ; Gould, B. of Aust. ii. pl. 9.

In some former remarks on Australian birds' eggs (*Ibis*, 1866, p. 326) I described the egg of this bird as that of *Eurostopodus albugularis*. The specimen was furnished by Mr. Rambird, of Port Denison, who had taken it from the adult of what he at the time believed to be the White-throated Goatsucker ; in fact Mr. Rambird sent to me what he believed to be the skin of the identical bird ; but in this he must have been mistaken ; and, considering the plumages of these birds are so nearly alike, I do not wonder at the mistake. I have since, however, obtained eggs of undoubted authenticity of all three species of Goatsuckers (*Cuprimulgus macrourus*, *Eurostopodus albugularis*, and *E. guttatus*) ; the first of these I will now proceed to describe.

The eggs of the Long-tailed Goatsucker (*C. macrourus*) so closely resemble those of the European species that but little difference is

discernible. They are in length 1·1 inch, and ·81 in breadth, of a light rich cream-colour when fresh, fading to almost white after being emptied, clouded with fleecy marks of pale slaty grey or bluish grey appearing beneath the surface of the shell; they are of an oval form, and two in number. They are placed on the bare ground, in a similar situation to that chosen by the *Eurostopodi*, usually on a strong ridge.

2. Notes on *Falco labradorus*, Aud., *Falco sacer*, Forster, and *Falco spadiceus*, Forster. By H. E. DRESSER, F.Z.S. &c.

[Received February 5, 1875.]

Amongst some Jer Falcons, below referred to, sent to me for examination by Professor Spencer F. Baird, was one of the Black or Labrador Jer Falcon, which, although not in the darkest stage of plumage, at once struck me as being a very good species, totally distinct from any other form of the Jer or Iceland Falcons. When in Brunswick in the autumn of 1873 I had the opportunity of examining a magnificent series of these Labrador Jer Falcons in the museum of that city, and was then fully confirmed in my opinion that they belonged to a totally distinct species. I tried to obtain one of these birds, but was unsuccessful, and have since then been using every endeavour to secure a specimen for my collection. Fortunately my exertions have at last been crowned with success, and I am now enabled to exhibit three examples of this rare Falcon just received from Labrador.

Mr. Sharpe, in his recently published Catalogue of Accipitres, refers this Labrador Jer Falcon to the true *Falco gyrfalco*, L.; but this is evidently an error, which has doubtless arisen from the want of specimens for examination. A glance at the birds I now exhibit, together with my series of specimens of *F. gyrfalco* from Scandinavia, will at once show how very distinct these two forms are. As will be seen, my three specimens are in different stages of plumage—one being dull dark sooty brown, streaked on the head with white, and marked and spotted on the underparts with buffy white, the chin being white streaked with sooty brown, and the upper parts of the body having lighter margins to the dark feathers. Tail dark sooty brown, the central feathers unmarked, and the outer rectrices barred on the inner web with pale yellowish white.

The second specimen resembles the first, but is much darker and less marked with buffy white; but the third is very dark, the upper surface of the body being uniform sooty blackish brown, with a slaty grey shade on the rump; the head nearly black; tail uniform blackish brown, with a few dull buff spots at the extreme tip; underparts like the back, but very sparingly marked with buffy ochreous streaks; the edge of the wings similarly marked; under tail-coverts blackish brown, spotted with light ochreous buff.

According to Mr. Ridgway (N. Am. Birds, iii. p. 117) the dark birds are the adult, and the lighter birds the immature; and I must

confess that I lean to this opinion also. Should this be the case, this species assimilates to *F. gyrfalco*, in which the young birds are lighter than the adults, rather than to *F. islandus* and *F. canadicans*, in which the adults wear a much lighter livery than the young birds. The synonymy of this Labrador Jer Falcon will be as follows:—

FALCO LABRADORUS.

Falco labradora, Aud. B. Am. pl. cxcvi. (1831).

F. (Hierofalco) gyrfalco, var. *labradora*, Ridgway, N. Am. Birds, iii. p. 117 (1874).

Hierofalco gyrfalco (L.), Sharpe, Cat. of Accipitres, i. p. 416 (1874, partim, nec Linn.).

Mr. Ridgway (North Am. Birds, iii. p. 115) separates the American Jer Falcon from our European species, calling it MacFarlane's Gerfalcon, *F. (Hierofalco) gyrfalco*, var. *sacer*, Forst.; but I feel convinced, from an examination of specimens from America, that there is no specific or even subspecific difference whatever between them. Some time ago Professor Spencer F. Baird courteously forwarded to me five specimens of Jer Falcons for examination, viz. :—*a*, ♀. Fort Anderson, Arctic America, 29th May, 1864 (*MacFarlane*); *b*, ♂. Fort Yukon, Porcupine River (*Captain F. J. Page*); *c*, ♂. Fort Yukon, Arctic America, June 1862 (*J. Lockhart*); *d*, ♀. America; *e*. Fort Nescopce, Labrador (*H. Conolly*). Of these the first four (*a*, *b*, *c*, and *d*) are undoubtedly identical with the Norwegian Jer Falcon, the fifth (*e*) being the dark Labrador *F. labradorus* above referred to. Having a fair series of Jer Falcons in my possession, I made a critical comparison of the four American examples; and my notes, taken at the time, are as follows:—

Specimen *a*, an adult female, compared with a female of *F. gyrfalco* from Quickjock, Lapland. This specimen agrees so closely that I cannot trace the least difference either in coloration, measurements, or any thing else; and as the two skins are made up much alike, I could not well tell them apart, except by the labels. Mr. Blandford, who is working with me, is also unable to discern any difference.

Specimen *b*, a male, evidently adult, agrees closely with an old male from Lapland in my collection, but has the head darker and less streaked with white, and the back is also bluer than that of the Lapland specimen. Doubtless the American bird is the older of the two.

Specimen *c*, also a male, agrees tolerably well with my male bird from Lapland, but has the head darker.

Specimen *d*, a female, agrees very closely with a female from Lapland.

I have marked the specimens with which these American birds have been compared, and exhibit them herewith. Unfortunately the American specimens have been sent back, or else every one here present could have convinced himself of the specific identity of the two birds.

Mr. Ridgway evidently lacked the materials which have been at my disposal, or he would doubtless have arrived at precisely the same

conclusion as I have done. Indeed he writes (*l. c.*) as follows respecting the female from Fort Anderson:—"Upon comparing this specimen with the figures of a pair of var. *gyrfalco* by Wolf in Newton's 'Ootheca Wolleyana,' I can discover no difference at all"—thus showing that he only needed the necessary materials to convince himself of the identity of the American and European Jer Falcons.

It may be of some interest to ornithologists to know the result of some researches I have made to ascertain whether the bird described by Forster under the name of *F. sacer* is really the Jer Falcon, more especially as Forster was the first author subsequent to 1766 to use the name *sacer*; and his paper bears date 1772, being 16 years prior to Gmelin's Syst. Nat., in which the true Saker Falcon is described under the name of *F. sacer*.

Forster writes (Phil. Trans. lxii. p. 382, abridged edition p. 331) as follows:—"Speckled Partridge Hawk at Hudson's Bay. The name is derived from its feeding on the birds of the Grouse tribe, commonly called Partridges, at Hudson's Bay. Its irides are yellow and the legs blue. It comes nearest the *Sacre* of Brisson, Buffon, and Belon; but Buffon says it has black eyes, which is very indistinct, for the irides are black in none of the Falcons, and in few other birds; and the pupil, if he means that, is black in all birds. It is said by Belon to come from Tartary and Russia, and is therefore probably a northern bird. It is very voracious and bold, catching Partridges out of a covey which the Europeans are driving into their nests (? uets). It breeds in April and May. Its young are ready to fly in the middle of June. Its nests, as those of all other Falcons, are built in unfrequented places; therefore the author of the account from Severn river could not ascertain how many eggs it lays; however, the Indians told him it commonly laid two. It never migrates, and weighs $2\frac{1}{2}$ pounds; its length is 22 inches, its breadth 3 feet."

From this it will be seen that it is most difficult to determine with any degree of certainty what the species is to which Forster refers. The yellow iris would point to an immature Goshawk; but that bird has not blue legs, and, doubtless, Forster would not have mistaken the Goshawk for the Saker. On the whole the probability is that the bird in question really was a Jer Falcon. The range of *F. gyrfalco* is, seeing that the American bird is identical with our European form, very extensive, as it is found from Scandinavia right across Asia into Arctic America, being, it would seem, replaced in Labrador by *F. labradorus*. The synonymy of this species I make rather different from that given by Mr. Sharpe (*l. c.*), and consider it should be as follows, viz.:—

FALCO GYRFALCO.

Le Gerfault, Briss. Orn. i. p. 370, pl. xxx. fig 2 (1760).

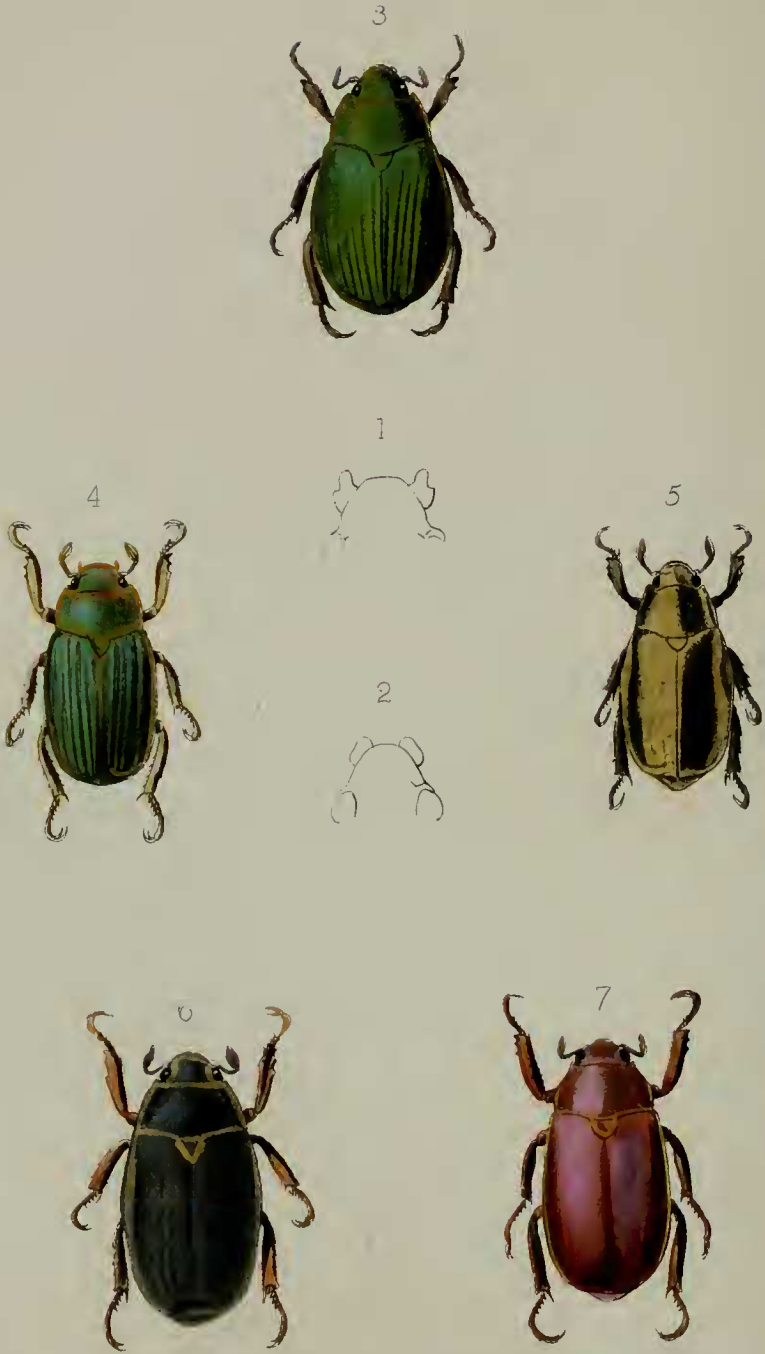
Falco gyrfalco, Linn. Syst. Nat. i. p. 130 (1766).

Gerfault de Norwège, D'Aubenton, Pl. Enl. pl. 462 (1770).

Le Gerfault, Buff. Hist. Nat. Ois. i. p. 239, pl. xiii. (1770).

? *Falco sacer*, J. Forster, Phil. Trans. lxii. p. 382 (1772).





E. W. Robinson Del. et Sc. 1875

NEW SPECIES OF PLUSIONIS

? *American Sacre, Speckled Partridge Hawk*, Pennant, Aret. Zool. ii. p. 202. no. 96 (1785).

Falco sacer, var. β , Gmel. Syst. Nat. i. p. 273 (1788).

? *Falco cinereus*, id. Syst. Nat. i. p. 267 (1788).

Le Tiercelet pagard du Gerfaut, Schl. & Verst. Traité Fauc. pl. 7 (1853).

Folco gyrofalco, Thien. Abbild. Vogeleiern, Taf. li. figs. 3 a-d (1854).

Hierofalco gyrfulco, Bp. Rev. et Mag. de Zool. 1854, p. 536.

Norway Falcon, Salvin & Brod. Falcoury, pl. xv. (1855).

Falco norvegicus, Tristr. Ibis, 1859, p. 24.

Falco gyrfulco norvegicus, Schl. Mus. P.-B. *Falcons*, p. 12 (1862).

I may here call attention to another Raptor first described by Forster, which Mr. Ridgway and Mr. Sharpe both seem to have referred to a wrong species, probably not having consulted the original description, as neither of them refers to Forster's paper. This bird is *F. spadiceus*, which Forster describes as follows:—"This species at first sight bears some resemblance to the European Moor Buzzard or *æruuginosus*, Linn., but is much less, and wants the light spots on the head and shoulders."

This description cannot be fitted to agree with *Archibuteo sanctijohannis*, to which both Mr. Ridgway and Mr. Sharpe have referred *F. spadiceus* as a synonym; but the species to which Forster refers is undoubtedly *Circus hudsonius*, Linn., and therefore the following should be added to the synonymy of this latter species, viz. :—

Falco spadiceus, J. Forster, Phil. Trans. lxii. p. 382 (abr. ed. xiii. p. 331) (1771); Gmel. Syst. Nat. i. p. 273 (1788).

Buteo spadiceus (Forst.), Vieill. Ois. Am. Sept. i. p. 34 (1807).

And the two latter synonyms should be erased from the synonymy of *Archibuteo sanctijohannis*.

3. Monographic List of the Coleoptera of the Genus *Plusiotis* of America, north of Panama, with Descriptions of several new Species. By ADOLPHE BOUCARD, C.M.Z.S., &c.

[Received February 16, 1875.]

(Plate XXIII.)

Plusiotis is a genus of Coleopterous insects belonging to the true Rutelidæ—the second group of the ninth tribe of Scarabæidæ, according to Lacordaire.

It is properly placed by this eminent author between *Chalcoplethis* and *Chrysina*. I say *Chrysina* instead of *Chrysophora*, because the latter genus is more naturally placed after *Chrysina*.

It is very closely allied to the genus *Pelidnota*, from which it differs only in the mandibles being rounded outwardly, with the extremity obliquely truncated (see Plate XXIII. fig. 2) instead of being bidentated (as in fig. 1). Besides, the clypeus in *Pelidnota* is of variable form according to the sex, whilst in *Plusiotis* it is alike in both sexes.

The genus forms the passage between *Pelidnota* and *Chrysin*, and consists of a number of species of a splendid metallic colour.

They are exclusively American. One species, *P. læta* of Sturm (*amalia* of Burmeister), is said to be from Valparaiso; but I think the locality is doubtful, inasmuch as, from the descriptions of these authors, it seems to be only a variety of *P. adelaida*. All the other species are from Texas, Mexico, Guatemala, Costa Rica, and Panama; but very likely several species of this fine group may yet be met with in Columbia and Ecuador.

Having acquired lately three magnificent new species of this genus, one of which, *P. aurora*, has been in my private collection for two years past, I have considered the present moment very favourable for describing these new species, and at the same time drawing up a monographic list of all those previously described.

The species are excessively rare in collections, being found only occasionally in the countries they inhabit.

When travelling in the State of Oaxaca (Mexico) from 1857 to 1861, I discovered the two fine species *P. adelaida* and *P. victorina*.

In April 1858 I had the good fortune to discover the splendid *Chrysin adolphi*, Chev., in the neighbourhood of Tuquila, and on the 18th of May of the same year a fine new species of *Plusiotis*, which I call *lacordairei*. Although seventeen years have elapsed since its discovery, the species is still undescribed and has never been found by any other traveller.

These beautiful insects, although so brilliant in colour, are not easily found, because they pass the day, like the common European *Melolontha vulgaris*, devouring the leaves of trees, and are very difficult to be perceived among the foliage.

A little before sunset they fly about; and I have procured several specimens of *P. adelaida* attracted towards me by the light of a fire.

I have found *P. victorina* and *P. lacordairei* on the leaves of oaks, which they were devouring.

I have also found in the same manner *Chrysin adolphi* and its variety *C. mnizechii*. It is therefore on these trees that they must be searched for.

Being assimilated in colour to the foliage, they are very difficult of detection where present; and this must be one of the principal reasons why they are so seldom sent home by collectors.

The majority of those I have seen in collections were found dead on the road, and are consequently imperfect specimens.

By shaking young oaks, I have procured some specimens of *P. lacordairei*.

To be successful in finding these insects it requires to be at the proper place in the proper season, as they are very local species and live only a short time. The spring is the best time of the year to search for them. It is also necessary to have great patience, looking carefully in all directions on the oaks, principally on young trees when the leaves are coming out.

The following list comprehends all the species of this rare and beautiful genus.

PLUSIOTIS RESPLENDENS, sp. n. (Plate XXIII. fig. 5.)

P. resplendens: *oblonga, valde convexa, supra aureo-metallica, capite punctato, oculorum margine interiore aureo-rubro, clypeo antice rotundato roseo-violaceo; thorace subtiliter punctulato; elytris aureis, nitidis, lævibus; infra roseo-argentea, tarsis aureo viridibus, antennis fuscis.* Length 1 inch.

Head strongly punctured; thorax nearly twice as long as it is broad, convex, the whole surface smooth; elytra convex, lightly striated with a burnished reddish gold margin, broader in the middle and rounded at the base. All the upper surface with the pygidium is of the most magnificent burnished pale gold, which will at once distinguish the species from any other. The underside is brassy silvery, less shining, with purplish reflections.

The only difference I can perceive between the male and the female is in the former being a little narrower and in the underside, which is more golden with greenish reflections.

Hab. Costa Rica.

I have two specimens of this magnificent insect, which were collected near San José.

PLUSIOTIS AURORA, sp. n. (Plate XXIII. fig. 7.)

P. aurora: *supra roseo-metallica, oblongo-ovata, capite punctato, thorace subtiliter punctulato, margine rubro; elytris tenuiter punctatis, punctis in striis regulariter dispositis, margine rubro; infra igneo-rosea, tarsis rubro-metallicis, antennis fuscis.* Length 1 inch 2 lines.

The bright rose colouring with red margin will at once distinguish this species from its congeners.

The head is slightly punctured, rosaceous, with greenish reflections; the thorax is of the most magnificent metallic coppery rose-colour, as well as the elytra and the pygidium, and slightly punctured all over. In the elytra the punctuation is disposed in regular striæ; they are oblong, a little broader in the middle and rounded at the base. The underside is of the same colour as the head, with the same reflection. Tarsi metallic red, with black claws.

Hab. Veragua.

I have only one specimen of this very handsome insect, which was sent to me two years ago by one of my correspondents. Three months ago I received from the same country what I consider to be the female. It is exactly similar in shape and size; but the colour is totally different, being a kind of pale silvery green, with rose reflections.

However, I am in doubt about it, as I have just received from the same country another specimen equally similar but all green. Unfortunately this insect is not in a condition to be described, having lost a great part of its original colour on the elytra and thorax. I shall wait until more specimens arrive to decide the question.

PLUSIOTIS BATESI, sp. n. (Plate XXIII. fig. 6.)

P. batesii: *oblonga, valde convexa, supra aureo-pallida splendida,*

capite aureo, margine anteriore rufo, parce punctulato; thorace elytrisque aureo-pallidis subtiliter punctulatis, elytris læviter striatis, pygidio rufo; infra rufa violaceo micans, tarsi cupreis, antennis fuscis. Length 1 inch 3 lines.

Head, thorax, and elytra of a very pale burnished gold-colour, very slightly punctured, the anterior margin of the head rufous; elytra slightly striated, of about the same length as those of *P. aurora*, but a little broader; pygidium rufous. The underside also rufous, with red and purple reflections; tarsi of a coppery colour, with the claws nearly black, antennæ pitchy.

Hab. Costa Rica.

I have only one specimen of this very fine insect, which was collected by an American geologist, Professor Gabb.

I dedicate this fine species to my esteemed friend Mr. H. W. Bates, the celebrated naturalist traveller, in honour of his numerous discoveries on the Amazons, and his important works on entomology.

PLUSIOTIS CHRYSARGYREA.

Pelidnota chrysargyrea, Sallé, Annales de la Soc. Ent. de France, tome iv. p. 362.

This very handsome species comes close to *P. batesii*, from which it differs chiefly in the colour, which is still more brilliantly metallic, and also in a broad rosy margin on each side of the thorax; the legs and tarsi also differ in colour, being green with blue claws.

My friend M. Auguste Sallé has recently published a diagnosis of this species in the Bulletin of the Entomological Society of France for the 12th of August 1874. He has two specimens, which were brought over from Costa Rica by Dr. van Patten. M. Sallé says that one of them is in colour just like quicksilver, and the other golden. I have compared these specimens with *P. resplendens* and *P. batesii*, from which they totally differ, although these last-named species are also golden. These three species, with *P. aurora*, are among the most magnificent insects yet discovered; and it is very probable that many more remain to be detected in Central America.

As my esteemed friend M. Sallé says he intends to give a full description of this species, it is useless for me to do so, as he is better able than myself to do justice to the subject; but I hope he will agree with me in placing this insect among the *Plusiotides*, as it has the characters by which this genus is distinguished from *Pelidnota*. Although these characters are slight, they seem to be constant. I think there are only three specimens of this fine insect known: two are in the collection of M. Sallé; and the other one is probably in Germany. I say this because I know for certain that Dr. van Patten had three specimens when he left London for Germany in 1872.

This species is one of my desiderata.

PLUSIOTIS MARGINATA, Waterh. Ent. Month. Magaz. 1871, vol. viii. p. 5.

P. marginata: oblongo-ovata, minus convexa, supra prusina, infra

argenteo-viridis, elytris lævibus margine lato argenteo-splendido, tibiis et tarsis aureis, antennis piceis. Length 11 lines.

Hab. Chiriqui (Veragua).

This species has been well described by Mr. Charles Waterhouse in the 'Entomologists' Monthly Magazine' for June 1871. The type is in the collection of the British Museum. Besides, another specimen of this charming species is in the collection of Mr. H. W. Bates. My description was taken from this specimen.

It is one of my desiderata.

PLUSIOTIS ADELAIDA, Hope, Proc. Ent. Soc. 1840, p. 11.

Plusiotis ornatissima, Sturm, Cat. 1843, p. 341, t. 3. f. 7.

P. adelaida: *oblongo-ovata, capite thoraceque viridibus, margine aurato; elytris viridibus, lineis argentatis; infra viridi-ænea, tibiis cupreis, tarsis cupreo-metallicis, antennis rufis.* Length 1 inch 2 lines to 1 inch 4 lines.

There is a fine variety of this species, with the head and the thorax green, with rufous lines, the elytra rufous with silvery lines and gold margin. This variety has been described by Sturm as *ornatissima*.

I met with this fine insect at La Parada, near Oaxaca (Mexico), during the year 1858. It used to fly about at sunset; and I was able to catch several specimens by running after them with a butterfly-net. May and June are the months when there is some chance of meeting with this insect.

As La Parada is a very mountainous country, covered with pines and oaks, it is very probable that it feeds on the leaves of these trees.

My colleague (of the Commission Scientifique du Mexique), M. Bocourt, has found a certain number of this species in Guatemala.

It is in the collections of the Jardin des Plantes of Paris, of the British Museum, MM. Mrizech, Sallé, Bates, &c.

PLUSIOTIS LÆTA, Sturm, Cat. 1843, p. 341.

Plusiotis amalia, Burm. Handb. iv. p. 422.

P. læta: *viridi-prasina, pedibus subauratis, tarsis æneis nitidioribus; elytris costatis, interstitiis latioribus, punctatis.* Length 1 inch.

This species is very closely allied to *P. adelaida*, from which (according to the description of Sturm) the only difference to be observed is in the colour of the tarsi, which are of a shining brassy green instead of metallic coppery. It is said to be from Valparaiso; but I believe this to be very doubtful, and, unhappily, I have not been able to see the species.

PLUSIOTIS GLORIOSA, Lec. Proc. Ac. Phil. 1854, p. 221.

P. gloriosa: *supra læte psittacina; clypeo punctulato, margine subtili elevato aureo; thorace aureo punctulato, margine laterali vittisque quatuor impressis splendide aureis, nitidissimis, interstitiis 2^o et 3^o foveis inauratis confluentibus vittum parvam simulanti-*

bus ornatis; subtus aureo-viridis, commissuris omnibus aureis.
Length 1 inch 2 lines.

Hab. Texas.

The only specimen known of this species is the type belonging to the Museum of Philadelphia. I had the pleasure of seeing it in London last year, Dr. Horn having had the good idea to bring this insect with him on his journey to Europe.

It is a very good species, totally different from any other. It was collected at "Copper-mines" in 1850 by Mr. Thomas H. Webb, M.D. It is also one of my desiderata.

PLUSIOTIS LACORDAIREI, sp. n. (Plate XXIII. fig. 4.)

P. lacordairei: oblonga, parallela, valde convexa, supra viridi-argentea roseo tincta; capite rufo, medio viridi, tenuiter punctulato; thorace subtiliter punctulato, margine cupreo micante; elytris tenuiter punctatis, punctis in striis profundis regulariter dispositis, margine cupreo micante, callo apicali fortiter elevato; infra viridi-argentea, tibiis rufis, tarsis cupreo-aureis, antennis fuscis. Length $11\frac{1}{2}$ lines.

The silvery green colour of this insect will easily distinguish it from any other; the head is coppery rufous, with the centre green; the thorax and the elytra are slightly punctured. In the latter the punctation is disposed in regular striæ. They have a brilliant coppery lateral margin and suture; the scutellum is also coppery; the tibiæ are red, with purple reflections, the tarsi coppery metallic, and the antennæ rufous. The upper and the under surfaces are of the most beautiful silvery green, with reddish reflections.

Hab. Tuquila (Mexico).

I have only one specimen of this fine species, which is also in the collections of MM. de Mnizech, Thomson, and Sallé.

All the specimens were collected by me in April and May of 1858 on young oaks, on which it feeds.

I dedicate this fine species to the memory of the late celebrated Professor T. Lacordaire, in honour of his magnificent work on Coleoptera, commonly called Lacordaire's 'Genera.' I have heard from my friends Dr. Candèze and others that he was so enthusiastic and worked so hard in the preparation of his last volumes, that it must have hastened his death, which took place on the 18th of July, 1870, at the age of sixty-nine years and four months, leaving the 'Genera' not quite finished. Happily Dr. Chapuis, his disciple and friend, has undertaken the conclusion of this gigantic work.

PLUSIOTIS AURIPES.

Chrycina auripes, Gray, Anim. Kingd. t. 14, p. 517.

P. auripes: oblongo-ovata, capite tenuiter punctato, supra viridi obscura; elytris punctatis, punctis in striis regulariter dispositis; tibiis aureis, tarsis aureo-viridibus, antennis fuscis. Length 1 inch to 1 inch 2 lines.

Hab. Mexico.

I have two specimens of this very rare species, one of which is the original type from which Mr. Gray took his short description.

PLUSIOTIS PSITTACINA, Sturm, Cat. 1843, p. 340, t. 3. f. 6.

P. psittacina: *oblongo-ovata, supra viridi-prasina, fortiter punctulata; tibiis rufis violaceo-micantibus, tarsis aureis.* Length 1 inch 4 lines.

This species has been considered by MM. Gemminger and Harold to be identical with *P. auripes*; but, having the typical specimen of the latter in my possession, and having examined attentively along with Mr. Charles Waterhouse the specimen in the collection of the British Museum under the name of *psittacina*, Sturm, which specimen has still the label of Mr. Sturm's own handwriting, we have come to the conclusion that it is altogether a good species, different from *P. auripes*, Gray. The elytra are much more punctuated, the colour is apple-green all over instead of a dark green, and the tibiæ are rufous, with purple reflections; it is also much longer, being 1 inch 4 lines in length.

PLUSIOTIS COSTATA, Blanch. Cat. Coll. Ent. 1850, p. 210.

P. costata: *oblonga, convexa, supra viridis, capite fortiter punctulato; thorace subtiliter punctulato, margine aureo-micanti; elytris punctatis, punctis in striis regulariter dispositis, tibiis tarsisque aureo-viridibus, antennis rufis.* Length 1 inch 2 lines to 1 inch 5 lines.

Hab. Mexico.

This handsome species was described by Professor Blanchard on a red specimen which must be considered really only a variety of the species. His description is nearly the same as the above; but, instead of being green, the head, thorax, elytra, tibiæ, and tarsi are described as of a brilliant red coppery colour. There is also a variety of the same red coppery colour, but darker, with purple reflections.

I have a very fine series of this species with its varieties. Specimens are also in the collections of the British Museum, Jardin des Plantes, Mnizech, and Sallé.

PLUSIOTIS SALLÆI, sp. n. (Plate XXIII. fig. 3.)

P. sallæi: *ovata, convexa, supra viridis; capite crebre punctulato; thorace subtiliter punctulato, margine cupreo-pallido, scutello lævi; elytris punctatis, punctis in striis regulariter dispositis; infra viridis, femoribus viridibus, tibiis, tarsis, antennisque rufis violaceo tinctis.* Length 1 inch 1 line.

Head green, strongly punctured; thorax green, slightly punctured, with a broad pale coppery margin on each side, which distinguishes at once this species from *P. auripes* and *P. costata*. Elytra punctured, the punctures disposed in regular striæ; tibiæ, tarsi, and antennæ rufous, with a purplish reflection.

Hab. Mexico.

I have only one specimen of this rare species, which was taken in the neighbourhood of Orizaba.

I have the greatest pleasure in dedicating this species to my intimate friend M. Auguste Sallé, in honour of his numerous entomological discoveries in St. Domingo, Central America, Mexico, &c.

PLUSIOTIS LANIVENTRIS, Sturm, *l. c.* p. 339, t. 3. f. 5.

P. laniventris: *oblonga, ovata, supra læte viridis; capite, thorace elytrisque crebre punctulatis, margine cupreo-micanti; infra viridi-aurata, tibiis tarsisque aureis, antennis rufis.* Length 1 inch 3 lines.

In Dr. Gemminger and B. de Harold's 'Catalogus Coleopterum,' *P. latipennis* of Sturm and *P. serena* of Klug are regarded as synonyms of this species.

I have two specimens of this rare insect, which is also in the collections of MM. de Mnizech and Sallé.

PLUSIOTIS MNIZECHII, sp. n.

P. mnizechii: *oblonga, convexa, supra læte viridis, capite punctato, oculorum margine interiore aureo, clypeo antice rotundato roseo-violaceo; thorace crebre punctulato, margine aureo; elytris fortiter punctulatis, margine aureo-micanti, scutello cupreo; infra viridi-cuprea; femoribus, tibiis tarsisque aureis, antennis fuscis.* Length 1 inch 4 lines.

Head, thorax, and elytra strongly punctured, with a brilliant gold margin and suture; clypeus rufous, with purple reflections; thorax, elytra, and pygidium golden green; scutellum coppery, underside copperish green; legs, tibiæ, and tarsi golden; antennæ rufous.

Hab. Mexico.

I have two specimens of this handsome species; and I have seen two others in the British Museum which seem to be similar. I do not know of any other specimen.

I dedicate this fine insect to my honourable friend Count Georges de Mnizech, in honour of the magnificent collection of Coleoptera which he has managed to form by his great passion for entomology and his liberality.

PLUSIOTIS VICTORINA, Hope, Proc. Ent. Soc. 1840, p. 11.

P. victorina: *capite thoraceque profunde punctatis cupreo rufis; elytris fortiter punctatis, splendide viridi-aureis, lineis macularibus rufis, margine cupreo; infra cupreo-rufa, tarsis nigris, antennis fuscis.* Length 1 inch 4 lines.

In the collections of the British Museum, Jardin des Plantes, Mnizech, Sallé, Bates, Candèze. I have three specimens of this magnificent species, which comes very close to the genus *Chrysin* from its large size and its general appearance. This is why I have placed this species the last of all; and for the same reason I began my list with *P. resplendens*, which is the species most closely allied to *Pelidnota*. They form natural links between these two genera.

I found *P. victorina* for the first time on the 8th of May, 1857, on the road from Tepanzacualco to Istlan, about fifty miles from Oaxaca. They were devouring the young leaves of oak trees.



1



2



3



5



4



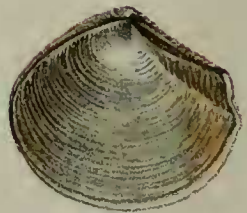
6



7



8



8a



10



9



11

G. Sowerby del.

M & N Hanhart imp.

I sent the three specimens which I collected on that day to my friend M. Sallé, who wrote to me immediately that they were very fine insects, and very rare in collections. In consequence of this information I went again to Tepanzaualco in May 1860, but could find only two more specimens.

In July of the same year I was on my way to the Atlantic coast for change of air (being very ill of pleurisy), when I saw one of these insects near Talea, not far away from Tepanzaualco. I could not resist the temptation to search for them, and was so fortunate as to collect about twelve. At the same time I found also several specimens of a new *Golofa*, described some time after by Mr. James Thomson as *Golofa imperator*.

P. victorina is more easily found than the other species from its more conspicuous appearance, the difference in colour between its head and thorax and its elytra being very striking.

List of the Species.

- | | |
|---|---|
| 1. <i>Plusiotis resplendens</i> , p. 119. | 9. <i>Plusiotis lacordairei</i> , p. 122. |
| 2. — <i>aurora</i> , p. 119. | 10. — <i>auripes</i> , p. 122. |
| 3. — <i>batesi</i> , p. 119. | 11. — <i>psittacina</i> , p. 123. |
| 4. — <i>chrysargyrea</i> , p. 120. | 12. — <i>costata</i> , p. 123. |
| 5. — <i>marginata</i> , p. 120. | 13. — <i>salléi</i> , p. 123. |
| 6. — <i>adelaida</i> , p. 121. | 14. — <i>laniventris</i> , p. 124. |
| 7. — <i>læta</i> , p. 121. | 15. — <i>mnizechii</i> , p. 124. |
| 8. — <i>gloriosa</i> , p. 121. | 16. — <i>victorina</i> , p. 124. |

EXPLANATION OF PLATE XXIII.

- | | | |
|--|--|--|
| Fig. 1. Mandible of <i>Pelidnota</i> . | | Fig. 5. <i>Plusiotis resplendens</i> , p. 119. |
| 2. Mandible of <i>Plusiotis</i> . | | 6. — <i>batesi</i> , p. 119. |
| 3. <i>Plusiotis salléi</i> , p. 123. | | 7. — <i>aurora</i> , p. 119. |
| 4. — <i>lacordairei</i> , p. 122. | | |

4. Descriptions of ten new Species of Shells.

By G. B. SOWERBY, Jun.

[Received February 23, 1875.]

(Plate XXIV.)

1. *CONUS GRACILIS*, n. sp. (Plate XXIV. fig. 6.)

C. testa elongata, basin versus multo attenuata, superne subangulata, fusca, maculis albidis irregulariter aspersa, undique transversim sulcata, sulcis angustis, subdistantibus, crenulatis; spira elata, subgradata, acutiuscula; apice papillari; anfractibus 9, superne concavis, crenato-bisulcatis; apertura angusta.

Long. 31, maj. diam. 10, min. 2 mill.; spira alt. 8 mill.; apert. long. 23, maj. lat. 2, min. 1½ mill.

An elongated Cone, much attenuated towards the base, obtusely

angled at the upper part; of a darkish brown colour, with an irregular sprinkling of whitish patches; transversely grooved throughout, grooves narrow, rather distant, crenulated; spire elevated, rather acute; apex papillary; whorls 9, concave above, with two crenulated grooves; aperture narrow.

Specimen unique, in the collection of Dr. Prevost.

Obs. This very elegant new shell resembles in form *C. aculeiformis* (Reeve), *orbigny* (Audouin), &c., but in sculpture and style of painting it is quite different from the shells of that group; its surface, between the grooves, has a smooth and shining appearance, though beneath the lens very fine longitudinal and transverse striæ may be discerned. As in most Cones, the grooves are much closer, deeper, and more strongly crenulated towards the base than at the upper part of the body-whorl; while the two grooves round the whorls of the spire are about equal to those of the base. The colouring, though simple, is not common in Cones, and quite unknown in its congeners in form—the rich brown colouring almost covering the shell, relieved by a few irregularly placed whitish patches.

2. CONUS MULTILINEATUS. (Plate XXIV. fig. 5.)

C. testa turbinata, flavescenti-fusca, lineis fuscis punctatis multicingulata, zona lutescente subcentrali balteata, basin versus paulo attenuata, valide costata, superne angulata, lævi; spira concavo-acuminata, tuberculis parvis coronata, inter tuberculas brunneo maculatu; anfractibus 9, planato-concavis.

Long. 40, maj. lat. 20, min. 5 mill.; spira alt. 8 mill.; apert. long. 32, maj. lat. $4\frac{1}{2}$, min. 3 mill.

A turbinated Cone, of rather solid structure, yellowish brown colour, encircled with numerous fine brown dotted lines and a sub-central belt of pale yellow, somewhat attenuated towards the base, where it is strongly ridged; smooth at the upper part, and angled; spire rather concavely acuminated, coronated with small tubercles, which are made conspicuous by intermediate brown blotches; whorls 9 in number.

Specimen unique, in the collection of Dr. Prevost.

Obs. The species most like this in marking is *C. lignarius* (Reeve), from which, however, it may very readily be distinguished, both by its turbinated form and the coronation of the spire. Finding this species so like *C. lignarius* in colour and markings, I have been led to examine a large number of specimens of that species; and I find them remarkably uniform, with scarcely any tendency to variation, of an oblong, almost cylindrical form, without any sign of nodules on the spire.

3. TROCHUS (POLYODONTA) MIRABILIS. (Plate XXIV. fig. 7.)

T. testa conica, solidiuscula, corneo-albida rufo-fusco flammulata; anfractibus 10, planato-convexis, ad suturam profunde excavatis, spiraliter costis rugoso-granulatis valide cingulatis, interstitiis profundis, plicatis; spira acuta; basi convexiuscula, granuloso-

costata, late excavata, supra columellam profunde umbilicata; apertura subquadrata, intus lirata; columella nodulosoplicata.

Alt. 40, maj. lat. 30 mill.

Hab. Moluccas.

A *Trochus* (section *Polydonta*), rather solid, fleshy white, with longitudinal reddish brown flames; whorls 10 in number, flatly convex, deeply excavated at the suture, encircled spirally with strong granular ribs, between which the interstices are deep and plicated; spire acute; base rather convex, with rather a broad excavation, and a deep umbilicus above the columella; aperture nearly square, ridged within; columella furnished with nodulous plaits.

Obs. A very beautiful species, of striking character. The only other specimen of it that I have seen is a smaller one, which Miss E. Farre presented to the British Museum, in the early part of the year 1871. The roughly granular ribs and the deeply excavated suture are its chief characters.

4. ZIZIPHINUS MULTILIRATUS. (Plate XXIV. fig. 10.)

T. testa abbreviato-conica, flavescenti-viridula, rufo flammulata; anfractibus 7, convexis, obsolete biangulatis, spiraliter crebre grano-liratis; basi convexa; apertura subcirculari; columella lævi, callosa, subarcuata; labio externo tenui, simplici.

Maj. diam. 18, alt. 17 mill.; apert. diam. 9 mill.

Hab. Cape of Good Hope.

An abbreviately conical *Ziziphinus*, of a yellowish-green colour, with red flames; whorls 7 in number, convex with two very slight angles, spirally closely encircled with granular ridges; base convex; aperture nearly circular; columella smooth, callous, slightly arched; outer lip simple and thin.

Var. β . *Costis rufo-articulatis, vix granosis* (Plate XXIV. fig. 11).

In this variety, though evidently not specifically distinct, the ridges are nearly smooth, and only a slight tendency to granulation may be observed on the upper part of the whorls.

5. MITRA FLEXILABRIS. (Plate XXIV. fig. 4.)

M. testa pyramidata, lutea, aurantiaco bizonata, polita, transversim obsolete striata; spira subobtusè acuminata; basi leviter contracta; anfractibus 6, plano-convexis; apertura elongata, superne attenuata; columella quinqueplicata; labio externo simplici, superne inflecto; intus lævi.

Long. 13, maj. lat. 4; anfr. ult. maj. long. 9; apert. long. 7, maj. lat. $1\frac{1}{2}$, min. $\frac{1}{3}$ mill.

A small pyramidal *Mitra*, of a pale yellow colour with two orange zones, smooth, very faintly striated spirally; spire rather obtusely acuminate; base slightly contracted; whorls 6, flatly convex; aperture long, attenuated above; columella five-plaited; outer lip simple, inflected above; interior smooth.

Hab. Mauritius.

Specimen from the collection of Dr. Prevost.

6. MITRA INDUTA. (Plate XXIV. fig. 9.)

M. testa acuminato-fusiforimi, epidermide atro-fusca induta, lævigata, obsolete striata, basin versus valide sulcata; spira acuta; basi leviter attenuata; anfractibus 9, subrotundatis; apertura oblonga, carnea; columella rectiuscula, triplicata; labio externo arcuato, tenui, minutissime crenulato; intus lævi.

Long. 33, maj. lat. 11; anfr. ult. maj. long. 21; apert. long. 16, lat. 4 mill.

An acuminately fusiform *Mitra*, covered with a dark brown epidermis, nearly smooth, very obscurely striated, but strongly grooved towards the base; spire acute; base somewhat attenuated; whorls 9 in number, rather rounded; aperture oblong, flesh-colour; columella nearly straight, three-plaited; outer lip arched, thin, very minutely crenulated; interior smooth.

Obs. A species quite distinct from any hitherto described; it makes an addition to the *Mitræ* with dark epidermis, such as *M. orientalis*, *nigra*, &c.

7. OVULUM DEPRESSUM. (Plate XXIV. fig. 1.)

O. testa elongata, angustata, depressa, antice producta, utrinque attenuata et bicuspidata, polita, minutissime striata, alba, extremitatibus aurantiaco tinctis; basi concavo-depressa; apertura angusta, postice dilatata.

Long. 21, maj. diam. 5, min. 2 mill.

Hab. North-west Australia (*Capt. Denicke*).

A narrow depressed *Ovulum*, produced in front, both ends attenuated and terminating in two points, polished, very finely striated, white, tinged with orange at the extremities; base concavely depressed; aperture narrow, rather more open towards the hinder part.

S. ADMETE TABULATA. (Plate XXIV. fig. 3.)

A. testa oblongo-turrita, spiraliter costata (costis planato-concavis), longitudinaliter obscure plicata, albidâ, epidermide pallide fuscâ induta; anfractibus 7, convexis, superne angulatis, supra angulum subconcavo-depressis; apertura oblongo-ovata; columella rectiuscula, minute plicata.

Long. 22, maj. lat. 10 mill., apert. long. 9, lat. $4\frac{1}{2}$ mill.

Hab. Arctic Ocean.

An *Admete* of an oblong turreted form, spirally ribbed, ribs slightly concave; longitudinally obscurely plicated; whitish, covered with a pale brown epidermis; whorls 7 in number, convex, angled above, concavely depressed above the angle; aperture oblong-ovate; columella nearly straight, minutely plicated.

Obs. The species of the genus *Admete* (Möller), by some included in *Cancellaria*, are all northern; the type is *A. viridula* (Gould); and the species at present known are *A. crispa* (Möller), *couthoyi* (Jay), *grandis* (Forbes), *abnormis* (Gray), *borealis* (A. Adams), and *ciliata* (Krüger).

9. *LATIRUS AUREO-CINCTUS*. (Plate XXIV. fig. 2.)

L. testa elongato-turrita; spira obtuso-acuminata; basi multo contracta; anfractibus 9, rotundatis, spiraliter liratis, longitudinaliter costatis, costis latis rotundatis, liris aureo-flavis, interstitiis atro-fuscis, filo-striatis, striis albidis; apertura ovata, parva; columella triplicata; labio externo crenulato; canali brevi, rectiuscula.

Long. 20, lat. 8; apert. long. 5, lat. $2\frac{1}{2}$ mill.

Hab. Mauritius.

An elongately turreted shell; spire obtusely acuminate; base much contracted; whorls 9 in number, rounded, spirally ridged, longitudinally ribbed; ribs broad, rounded; ridges of a golden yellow colour; interstices nearly black, with fine whitish threads; aperture ovate, small; columella three-plaited; outer lip crenulated; canal short, nearly straight.

Obs. This remarkable little shell I received about two years ago from M. de Robillard of Mauritius; but I believe it has never been described. There is no known species with which it can well be compared.

10. *MYODORA ROTUNDATA*. (Plate XXIV. fig. 8.)

M. testa rotundato-subtrigona, valde inæquivalvi, albida, utrinque concentricè valde striata; latere postico leviter biangulato; margine dorsali excavato, vix incurvato; umbonibus acutis, cæruleo tinctis; valva dextra valde ventricosa, posticè bicostata; valva sinistra planata; fovea trigona ligamenti parviuscula.

Lat. 25, alt. 23 mill.

Hab. New Zealand.

A *Myodora* of a rounded form, very inæquivalve, both valves concentrically strongly striated, with two slight angles on the posterior side; dorsal margin excavated, scarcely incurved; umbones acute, of a bluish tint; right valve very ventricose, with two ribs from the umbones to the posterior margin; left valves flat; triangular ligamentary pit rather small.

Obs. Four specimens of this species having come into my hands, I have compared them with a number of specimens of *M. striata*, and find them to differ in these respects—*M. rotundata*, right valve much deeper, umbones more central, dorsal margin less incurved and more sloping, ligamentary pit much smaller, and the whole shell rounder.

EXPLANATION OF PLATE XXIV.

- Fig. 1. *Ovulum depressum*, p. 128.
- 2. *Latirus aureo-cinctus*, p. 129.
- 3. *Admete tabulata*, p. 128.
- 4. *Mitra flexilabris*, p. 127.
- 5. *Conus multilineatus*, p. 126.
- 6. — *gracilis*, p. 125.
- 7. *Trochus (Polydonta) mirabilis*, p. 126.

- Fig. 8 a, b. *Myodora rotundata*, p. 129.
- 9. *Mitra induta*, p. 128.
- 10. *Ziziphinus multiliratus*, p. 127.
- 11. — — —, var. β .

5. On some Spiders from New Caledonia, Madagascar, and Réunion. By T. THORELL.

[Received February 24, 1875.]

(Plate XXV.)

Some considerable time ago I received from Dr. Aug. Vinson, the celebrated author of 'Aranéides des îles de la Réunion, Maurice et Madagascar,' 'Voyage à Madagascar au couronnement de Radama II.,' &c., a little collection of Spiders, partly from New Caledonia and partly from Madagascar and Réunion, among which were a few new species which Dr. Vinson requested me on a fitting opportunity to describe. The collection was accompanied by beautiful figures of some of the species sent, executed by Dr. Vinson himself, and by various interesting notices relative to their habits, which Dr. Vinson obligingly placed at my disposal. Hindrances, which it was not in my power to avoid, have prevented my executing the commission thus received as early as I could have wished. Having, however, now obtained leisure for the purpose, I have not confined myself to describing those species only which appear to me to be new, accompanied by the figures I have received from Dr. Vinson, but I have also added more or less detailed descriptive notices of the other previously known species. Dr. Vinson's work, 'Aran. des Iles de la Réunion &c.,' has, as is generally known, met with a large and universal approval, and is justly considered one of the most valuable works treating on this interesting group of animals, especially on account of the numerous and important observations it contains relative to the habits and instincts of the species described. The species of which he has treated have, through these observations as well as through Dr. Vinson's descriptions and figures made directly from living specimens, become of the greatest interest to European arachnologists, who are seldom able to learn more about the life of extra-European Spiders than the name of the country where they are met with, or to see other than more or less faded specimens preserved in spirit. Having now had the good fortune to receive original specimens of some of Dr. Vinson's species, I consider myself bound to avail myself of this opportunity to indicate the changes of colour that some of them undergo when (as is the case with the specimens I have received from Dr. Vinson) they have lain some considerable time in spirit, as also to make some additions to Dr. Vinson's descriptions, and thus to offer a little contribution to our knowledge of these Spiders.

The species in question are as follows:—

NEPHILA LABILLARDIERII, n. sp. (Plate XXV. figs. 1, 2.)

Cephalothorace paullo brevior quam tibia cum patella quarti paris, nigro, bituberculato, pube densa subargentea tecto; sterno tuberculo magno nigro pone labium instructo, tuberculis lateralibus eo minoribus, rufescentibus; oculis lateralibus spatio diametro sua plus duplo majore disjunctis; pedibus obscure testaceo-fuscis,



2



3



4



A. Vinsou pinx. J. Smit lith.

M. & N. Hanhart imp.

apice late nigris, pube tenui pallida et pilis nigris tectis, tibiis quarti paris subter paullo longius et densius nigro-pilosis; abdomine subelliptico, circiter dimidio longiore quam latiore, fusco, subargenteo-piloso, pictura in dorso et in ventre distincta vix ulla.

♀ ad. Long. circa 25 millim.

Var. β. Abdomine supra pallido, testaceo-cinereo.

1799. *Aranea edulis*, Labill. Relation du voyage à la recherche de La Pérouse, ii, p. 240, pl. xii. fig. 4 (ad partem).

1841. *Epeira edulis*, Walck. H. N. d. Ins. Apt. ii. p. 93 (ad partem).

Fœmina. Cephalothorax circa $10\frac{1}{2}$ millim. longus, 8 millim. latus, paullo brevior quam patella cum tibia quarti paris, patellam cum tibia tertii paris longitudine æquans, longitudinem tibiæ quarti paris latitudine non æquans, frontis latit. $5\frac{1}{4}$ millim., lateribus partis thoracicæ æqualiter rotundatis, partis cephalicæ lateribus rotundatis quoque, hac parte postice tuberculis duobus fortioribus armata, a latere visa elevato-arcuata, primum (ad tubercula) fortius, tum levius adscendenti, ad oculos vero denique paullo arcuato-proclivi; niger, nitidus, pilis argenteis dense tectus, præter postice hic illic ita detritus, ut ad latera et pone oculos nigris maculis notatus videatur. Tuberculum oculorum mediorum humile, lateralium altius, costam latam, obliquam, duplo longiorem quam latiore, antice præruptam formans. Oculi medii, spatiis diametro oculi circa triplo majoribus disjuncti, in quadratum dispositi, æquales fere; laterales oculi, iis evidenter minores et subæquales, spatio oculi diametro vix triplo majore inter se remoti; antici eorum plus duplo longius ab anticis mediis quam hi inter se distant; spatium inter oculos medios anticos et marginem clypei paullo majus quam inter eos et medios oculos posticos. Mandibulæ circa $4\frac{1}{2}$ millim. longæ, tibiis tertii paris longitudine æquant, longiores quam patellæ et tarsi (primi paris tarsis exceptis, qui mandibulas longitudine æquant), duplo fere longiores quam latiores basi, in dorso ad basin geniculato-converxæ, tum rectæ, subcylindræ, apice intus oblique truncato-angustatæ, nigræ, nitidæ, nigro-pilosæ et -setosæ. Sulcus unguicularis antice dentibus trinis armatus, quorum medius reliquis major est, postice dentibus 4. Unguis niger. Maxillæ et labium nigra, illæ apice intus anguste pallidæ; labium non antice elevato-marginatum. Palpi nigri, nigro-pilosi, basi subter pube densa subargentea tecti. Pedes longi, graciles valde, præsertim postici: quarti paris femora in medio vix crassiora sunt quam palporum pars patellaris; femora et tibiæ apice vix vel parum incrassata; obscure testaceo-vel ferrugineo-fusci, apice late nigri (metatarsis ad maximam partem et tarsis nigris), coxis nigricantibus; pube tenui pallida præsertim in femoribus tecti, hac pube præsertim subter evidenti; nigro-pilosi, tibiis quarti paris subter paullo densius et longius nigro-pilosis. Aculei pedum parvi et debiles, sat rari in femoribus; aculei pauci supra in tibiis primi paris

secundum totam longitudinem earum dispositi, non ad apicem tantum. Pedes primi paris cephalothorace circa $5\frac{3}{4}$ longiores: in exemplo, cujus cephalothorax $10\frac{1}{2}$ millim. longus est, pedes primi paris 60 (patella $3\frac{1}{2}$, tibia 14, metatarsus 20, tarsus $4\frac{1}{2}$), secundi paris 49, tertii $25\frac{1}{2}$, quarti paris 43 (patella $3\frac{1}{4}$, tibia $8\frac{1}{2}$) millim. longi. Abdomen cylindrato-ovatum, circiter dimidio longius quam latius, supra fuscum, pube brevi subargentea minus dense vestitum, pictura distincta nulla (an ita in vivis quoque?); venter obscurior, subtestaceo-fuliginosus, scutis pulmonalibus nigro-fuscis, intus sulcis transversis brevibus profundis inæqualibus dense exaratis. Vulva ex area nigra transversa cornea constat, quæ antice costa recurva limitatur, postice vero, in medio (ad ipsam rimam genitalem), costa brevior, compressa, recta, acuta; utrinque hæc areæ inæqualis foveam majorem oblongam parum profundam ostendit.

Mas ignotus.

Var. β . *Differt abdomine supra pallidior, testaceo-cinereo, et paullo brevior, magis elliptico (long. ejus $12\frac{1}{2}$, lat. $9\frac{1}{2}$ millim.); pedes in exemplo unico a me viso paullo breviores sunt quoque quam in forma principali, femoribus basi nigricantibus; primi paris cephalothorace tantum $5\frac{1}{4}$ longiores. Long. corporis 22, cephaloth. 10, lat. ejus $7\frac{1}{4}$, lat. frontis $5\frac{1}{4}$, pedes primi paris 52 (patella $3\frac{1}{2}$, tibia 12), secundi paris 44, tertii $23\frac{1}{2}$, quarti 40 millim. longi; patella quarti paris $2\frac{3}{4}$, tibia 8 millim.*

Patria. Nova Caledonia. Duas fœminas adultas, a cel. Vinson ad me missas, vidi.

This species is no doubt comprised by Labillardière, together with the next following, under the name of *Aranea edulis*; but as his description of the abdomen better suits that species, I have retained for it the specific name *edulis* (Lab.).

NEPHILA EDULIS (Labill.).

Cephalothorace tibiam cum patella quarti paris longitudine æquante, nigro, bituberculato, dense argenteo-villoso, sterno tuberculo pone labium carente, tuberculis lateralibus humillimis, cum limbo antico rufescentibus; oculis lateralibus spatio diametro sua plus duplo majore disjunctis, pedibus rufescenti-fuscis, apice late nigris, subargenteo-pubescentibus, nigro-pilosis, apice femorum et tibiarum pedum anticorum inferius et tibiis quarti paris totis pilis nigris paullo longioribus et densioribus subhirsutis; abdomine fusco, fere duplo longiore quam latiore, plaga vel fascia transversa pallidior in dorso antice notato et pube argentea tecto.

♀ ad. Long. circa 20 millim.

1799. *Aranea edulis*, Labill. Rel. du voy. à la recherche de La Pérouse, ii. p. 240, pl. xii. fig. 4 (salt. ad part.).

1841. *Epeira edulis*, Walck. H. N. d. Ins. Apt. ii. p. 93 (salt. ad part.).

Fœmina. *Cephalothorax* $8\frac{3}{4}$ millim. longus, $6\frac{1}{3}$ millim. latus, patellam cum tibia quarti paris longitudine æquans, latitudine longitudinem

tibiæ ejusdem paris æquans saltem, frontis latitudine $4\frac{1}{2}$ millim.; lateribus partis thoracicæ modice rotundatis, partis cephalicæ lateribus rotundatis quoque, hac parte tuberculis duobus nigris minoribus postice armata, a latere visa primum, pone tubercula, in arcum adscendente, tum leviter modo et secundum lineam parum arcuatam adscendente, denique, ad oculos, leviter arcuato-proclivi; niger, nitidus, pube argentea dense vestitus. Sternum nigrum, tuberculis ordinariis 7 humillimis, parum expressis, cum limbo antico rufescentibus, tuberculo pone labium vix ullo. Tuberculum oculorum mediorum humile, tuberculum oculorum laterali-um costam latam, obliquam, antice et postice præruptam, antice altiorem formans. Oculi medii æquales, in quadratum dispositi, spatio oculi diametro circiter triplo majore disjuncti; oculi laterales subæquales, (antici præsertim) mediis paullo minores, et spatio evidenter minore (oculi lateralis diametro circa triplo majore) disjuncti quam quo distant medii inter se; medii antiqui duplo longius a lateraliibus anticis quam inter se remoti. Mandibulæ nigræ, $3\frac{3}{4}$ millim. longæ (=tibiæ tertii paris), patellis et metatarsis omnibus longiores, latitudine basali fere duplo longiores, in dorso ad basin sat fortiter geniculato-convexæ, tum directæ, nitidæ, versus apicem transverse striatæ, intus nigricanti-pilosæ et -setosæ: sulcus mandibularis antice 3, postice 4 dentibus armatus; unguis niger, apice piceus. Maxillæ et labium nigra, apice pallida. Palpi nigri, nigro-pilosi, parte femorali subter argenteo-pilosa. Pedes graciles, femoribus et tibiis apice leviter modo incrassatis, rufescenti- vel testaceo-fusci, metatarsis, basi excepta, et tarsis nigris, coxis quoque obscurioribus, femoribus (apice præsertim subter nigro-piloso excepto) et tibiis basi late pube argentea tectis, hac pube subter crassiore; præterea nigro-pilosi, tibiis 4 anterioribus versus apicem subter et in lateribus, infra, tibiisque quarti paris totis pilis paullo longioribus et densioribus subvillosis. Primi paris pedes cephalothorace circa quintuplo longiores, $49\frac{1}{2}$ millim. (patella $3\frac{1}{4}$, tibia $9\frac{1}{2}$, metatarsus $14\frac{1}{4}$, tarsus $3\frac{1}{2}$), secundi paris $39\frac{1}{2}$, tertii $21\frac{1}{2}$, quarti 32 (patella $2\frac{3}{4}$, tibia 6) millim. longi. Aculei pedum graciles, sat rari; aculei pauci supra in pedibus anterioribus non ad apicem tantum, sed secundum totam internodi longitudo- nem dispositi. Abdomen subcylindricum, fere duplo longius quam latius (13 millim. longum, 7 millim. latum), in fundo fuscum, fascia transversa pallida sat lata prope marginem anticum (?), pube sat densa argentea saltem antice tectum, in lateribus infra et postice striis 3-4 transversis subobliquis flavescentibus notatum; venter subfuliginæus, in medio flavescenti-maculatus; maculæ 4 parvæ flavescentes circa mamillas trapezium formant; scuta pulmonalia nigra, nitida, intus sulcis multis transversis profundis et subundulatis exarata. Vulva ex fovea magna nigra, transversa, plus duplo latiore quam longiore constare videtur, quæ fere lunata est, margine elevato antico recurvo, postico recto.

Mas ignotus.

Patria. Nova Caledonia. Exemplum unicum fæmineum vidi, a

cel. Dr. VINSON amicissime communicatum. Priori speciei, *N. labillardierei*, simillima est hæc aranea, sed certe distincta: differt enim sterni tuberculis vix ullis, femoribus et tibiis anterioribus apice longius pilosis, mandibulis tarsis primi paris longioribus, abdomine duplo fere longiore quam latiore, cet.

In his description of the abdomen of *Aranea edulis*, Labillardière says (*loc. cit.* p. 241), "On voit sur les côtés cinq à six bandes obliques grisâtres et en dessous plusieurs tâches fauves." These words very well suit the specimen here described, but not those which I have above called *N. labillardierei*, and which I received from Dr. Vinson, together with the present specimen, under the name of *Epeira edulis* (Lab.). These two very closely allied species were no doubt united also by Labillardière under his *Aranea edulis*, which is used as food by the natives of New Caledonia (*conf.* Labillardière and Walckenaer *loc. cit.*).

NEPHILA MADAGASCARIENSIS, Vins.

Cephalothorace brevior quam tibia cum patella quarti paris, nigro, bituberculato, pube densa argentea ad maximam partem tecto et setis aculeisque nigricantibus sparso, sterno nigro, tuberculo pone labium tuberculisque septem humilioribus ad insertionem coxarum instructo, quorum pur tertium reliquis majus est; oculis lateralibus spatio duplum oculi diametrum æquante disjunctis; pedibus breviter et satis æqualiter nigro-pilosis, dense uculeatis, rufis, metatarsis busi excepta et tarsis nigris, patellis saltem anterioribus et apice femorum tibiarumque nigricantibus; abdomine subcylindrato, plus duplo longiore quam latiore, nigro, dense argenteo-pubescente, fascia albicante transversa ad marginem anticum atrum, tum plaga antica inæquali flavescente et denique maculis multis secundum dorsum dispositis flaventibus vel argenteis variato; lateribus abdominis lineis obliquis maculisque ejusdem coloris pictis ventreque fasciis duabus transversis angustis flavis, altera ad rimum genitalem, altera fere in medio ventris, notato.

♀ ad. Long. 30-45 millim.

1863. *Epeira madagascariensis*, Vins. Aran. des îles de la Réunion, Maurice et Madag. p. 191, pl. vii.

Fœmina. Cephalothorax ad formam ut in N. eduli dixi omnino, sed præter pube densa argentea, qua ad maximam partem (plagu ordinaria postica nuda et parte cephalica in vicinitate oculorum exceptis) vestitus est, setis et spinulis sat longis sparsus, præsertim in parte cephalica. Tubercula postice in parte cephalica sat magna et acuta. Oculi laterales paullo minores quam medii, et spatio disjuncti, quod duplum eorum diametrum æquat: tuberculum, quo insistunt, ad formam ut in N. eduli, postice declive, unice præruptum. Oculi medii in quadratum dispositi, æquales, spatiis triplam oculi diametrum pæne æquantibus inter se remoti. Sternum tuberculum sat magnum nigrum subacuminatum pone labium ostendit; tubercula lateralia humiliora sunt, obtusa, iis tamen, quæ ad coxas tertii paris locum tenent, majoribus et al-

tioribus, ovatis. Mandibulæ longiores quam tarsi primi paris, breviores quam tibiæ tertii paris; sulcus unguicularis antice 3, postice 4 dentibus armatus. Maxilla et labium apice anguste testacea, præterea ut mandibulæ nigra. Palpi nigri, parte femorali rufescente. Femora et tibiæ versus apicem parum incrassata, quarti paris femora subter paullo densius nigro-pilosa quam reliqua internodia. Aculei pedum sat breves, in pedibus anterioribus densi, in femoribus horum pedum breves et etiani subter densi, ut in tibiis; subter in femoribus posterioribus aculei vix ultra ordinem singulam formant. Vulva ex fovea angusta transversa non magna constare videtur. Long. cephalothoracis in exemplo a me viso $12\frac{1}{2}$, lat. ejus $9\frac{1}{4}$, lat. frontis $6\frac{3}{4}$, long. mandibularum 5 millim. Pedes primi paris 65 (patella $4\frac{1}{2}$, tibia $15\frac{1}{2}$, metatarsus $22\frac{3}{4}$, tarsus $4\frac{1}{4}$) millim., ideoque cephalothorace plus quintuplo longiores; secundi paris pedes $55\frac{1}{2}$, tertii paris 33, quarti $52\frac{1}{2}$ (patella $3\frac{1}{2}$, tibia 11) millim. longi; abdomen 24 millim. longum, 11 millim. latum (long. totius corporis 31 millim.). (Vid. præterea descr. cel. Vinsonii loc. supra cit.).

Patria. Insula Madagascar. Fœminam unicam supra descriptam benigne ad me misit cel. Dr. Vinson.

The natives of Madagascar eat this Spider, "en l'accommodant avec de l'huile ou de la graisse" (vid. Vinson, 'Voyage à Madagascar,' p. 126).

EPEÏRA CUPIDINEA, n. sp. (Plate XXV. fig. 3.)

Cephalothorace brevior quam tibi cum patella quarti paris; humili, antice fortiter angustato, nigricante vel lurido, pube densa subargentea vestito, oculis mediis rectangulum dimidio longiorem quam latiore formantibus, oculis lateralibus spatio oculi diametrum pœne æquante disjunctis, ab oculis mediis spatio duplo majore remotis quam quo distant medii antici vel postici inter se; pedibus nigricantibus, plus minus distincte subtestaceo-annulatis; abdomine ovato, longiore, antice bituberculato, dorso ante tubercula testaceo-albicante, argenteo-piloso, pone ea vero obscurius rufo- vel aureo-fusco, maculis argenteis ornato, quarum 4, antice, trapezium antice latius quam postice formant.

♀ ad. Long. circa 18 millim.

Fœmina. Cephalothorax inverse ovato-cordiformis fere, in lateribus ample et fortiter rotundatus, antice fortiter sinuato-angustatus, margine postico emarginato; $7\frac{1}{2}$ millim. longus, 6 millim. latus, frontis latitudine modo $2\frac{1}{2}$ millim.; brevior quam patella cum tibia quarti paris, tibiam primi paris longitudine æquans, tibiæ quarti paris longitudinem latitudine puullo superans; humilis, dorso fere plano et a latere viso recto, fovea centrali ordinaria paullo pone medium sita, sat magna et profunda, postice latior, subgeminata; in fundo nigricans vel saltem hic illic luridus vel subtestaceus, pube densa cinereo-albicante, subargentea tectus. Sternum breviter ovatum, tuberculis 7 ad insertionem coxarum, nigrum, nigro-pilosum, vittu media longitudinali flava. Oculi subæquales; medii in tuberculo postice humili, antice prominenti

positi sunt, aream rectangulam, dimidio longiorem quam latiore occupantes; spatium inter oculos medios anticos, ut inter medios posticos, oculi diametro evidentè, pæne dimidio, majus est; medii antici a mediis posticis spatio oculi diametro pæne triplo majore distant, æque saltem longe atque a margine clypei. Oculi laterales bini tuberculo sat forti impositi, intervallo disjuncti sunt quod oculi diametrum vix æquat; spatium inter oculos posticos laterales et medios duplo majus quam spatium quo distant hi inter se. Series oculorum postica desuper visa recta vel parum procurva; oculi laterales antici paullo longius quam medii antici a margine clypei distant. Mandibulæ leviter reclinatæ, femore antico angustiores, tibia vix crassiores, pæne duplo et dimidio longiores quam latiores, subcylindratae, in dorso versus basin arcuato-convexæ, tum vero rectæ, in medio immo subimpressæ, 3 millim. longæ (patellis primi paris paullo breviores); nitidæ, pilosæ, piceæ, macula media testacea notatæ; sulcus unguicularis dentibus fortibus antice 4 (quorum intimus reliquis minor), postice 3 armatus. Maxillæ nigræ, apice intus testaceæ; labium nigrum, apice testaceum. Palpi fuligineo-testacei, nigropilosi et -setosi. Pedes sat robusti, lurido-nigri, vix evidentè pallidius annulati, coxis macula obscure testacea notatis, præsertim subter pube lurida vel ferrugineo-testacea vestiti, nigropilosi, aculeis præsertim in tibiis subter longis et subappressis, sat debilibus, nigris et testaceo-fuscis; tibiæ quarti paris reliquis tibiis paullo robustiores sunt paulloque densius pilosæ videntur. Pedes primi paris $31\frac{1}{2}$, secundi 30, tertii 19, quarti 28 millim. longi; patella cum tibia primi paris $10\frac{1}{2}$, quarti paris $8\frac{3}{4}$ millim. Abdomen sat regulariter ovatum, dimidio saltem longius quam latius (12 millim. longum, $7\frac{1}{2}$ millim. latum), apice postico rotundato, antice tuberculis duobus subconicis, obtusis, haud ita magnis, circa in $\frac{1}{5}$ longitudinis a margine antico distantibus, non ad ipsa latera, sed paullo magis intus locatis præditum; supra ante tubercula albicans, præterea vero obscure rufo-vel aureofuscum, argenteo, maculatum: tubercula postice maculis duabus argenteis occupantur; pone has maculas duæ aliæ magis versus medium sitæ adsunt, cum illis trapezium antice fere duplo latius quam postice, et brevius quam latius antice formantes; præterea multis aliis maculis minoribus argenteis notatum est dorsum, posterius duas series laterales formantibus; latera abdominis præsertim antice striis obliquis et maculis parvis argenteis notata; venter niger, serie utrinque pallida ex stria vel macula parva cum maculis binis ad latera mamillarum formata notatum. Vulva epigyni caret: constat ex area magna, transversa, nigra, plus duplo latiore quam longiore, margine fortiter elevato circumdata, quæ costa media humili in duas foveas subtransversas divisa est: margo anticus bis sinuatus est vel in medio in formam trianguli brevis retro productus; postice lamina elevata transversa limitantur hæ foveæ, quæ in medio incisa est itaque in duos lobos rotundatos divisa; margo lateralis foveæ latus exterius hujus laminæ amplectitur. Mamillæ nigricantes.

Mas ignotus.

Fœmina jun., 10 millim. longa, differt cephalothorace et pedibus sordide testaceis, his nigro-punctatis et nigricanti-annulatis, tibiis quarti paris nigris, annulo basali testaceo; ventre fuligineo-testaceo, striis trinis brevibus flavescentibus in utroque latere, punctisque 4 vel 6 subargenteis in medio anterieus, in duo vel tria paria dispositis.

Patria. Nova Caledonia, ubi sat frequens inveniri videtur hæc aranea (Vinson in litt.); duas fœminas adultas ibi captas ad me misit cel. Vinson. Fœminam juniorem quoque possideo, a cel. Van Hasselt dono mihi datam, cujus patriam vero ignoro. *E. maritimæ*, Keyserl.*, sine dubio valde propinqua est pulcherrima hæc species, sed verisimiliter diversa: abdomen *E. maritimæ* superne sordide album esse dicitur, area obscura nigricante vel rufescente, per totam longitudinem abdominis extensa, maculis paucis albis notata et vitta undulata alba utrinque limitata; quæ in nostram speciem non quadrant.


ARACHNURA SCORPIONOIDES, Vins.

1863. *Arachnoura scorpionides*, Vins. Aran. d'îles de la Réunion, *cat.* p. 291, pl. xiii. figs. 1, 1a.

1864. *Hapalochrota caudata*, Keys. Besch. neuer Orbitelæ, in Sitz.ber. d. Isis zu Dresden, 1863, p. 82 (20), tab. iii. figs. 6-11.

As this species has already been described and figured, both by Vinson and Keyserling, I shall here only give some few additional remarks, founded on the examination of a female specimen from Réunion which was kindly presented to me by Dr. Vinson. The length of the whole body is 12 millims., of cephalothorax nearly 4, of abdomen 10 (the "tail" about 4) millims. Breadth of cephalothorax $3\frac{1}{4}$, and = length of patella + tibia of the first or second pair of legs; breadth of abdomen about $3\frac{3}{4}$ millims. When measured in the usual way, from the margin of cephalothorax, the proportion of the legs appears to be 2, 4, 1, 3, or 2, 1, 4, 3, the second pair being very slightly longer than the first and fourth pairs, which are of equal length (10 millims.); but when measured on the underside, from the base of the coxæ, the fourth pair are a little longer than the others. Length of third pair of legs nearly 7, of tibia + patella I. (or II.) nearly $3\frac{1}{2}$ millims.; tibia I. is nearly 2, tibia + patella IV. nearly 4, tibia IV. 2 millims. The fore central eyes are larger than the other 6, which are almost equal; the area occupied by the four central eyes is double as long as broad in front, and about half as broad again before as behind. The lateral eyes are separated by an interval evidently larger than their diameter and rather larger than the interval between the fore centrals, this latter interval being somewhat smaller than an eye's diameter; the space between the posterior centrals is distinctly smaller than the diameter of these eyes. The femora of the first pair are slightly incrassated on the interior side towards the apex; they have 1, 1, 1 pale and slender

* "Beiträge z. Kenntn. d. Orbitelæ," in Verhandl. d. zool.-bot. Gesellsch. in Wien, xv. p. 813 (15).

spines on the inner, and 1, 1, 1, 1 such spines on the outer side, all towards the apex; also the tibia has 1, 1 such spines on the inner side; with these exceptions the legs appear to be unarmed. The posterior part of the abdomen, from the anterior mamillæ, is encircled by closely set wrinkles; the skin of its sides, in front of the mamillæ, appears to be folded into closely set, elevated, longitudinal and somewhat undulated wrinkles. The vulva is a tolerably large, blackish, transverse area close by the rima genitalis: it is thrice as broad as long, and its lateral extremities are limited by a short inward curved costa: the anterior extremities of these two costæ are united by another costa curved forward and forming with them almost a , and limiting two shallow foveæ. The whole belly behind the rima genitalis is yellow.

According to Keyserling, the legs of the fourth pair are the longest, and the first pair slightly longer than the second; and the thighs, patellæ, and tibiæ of both first and second pair of legs are armed with spines. His two specimens were from Mauritius. Dr. Vinson tells me that he has found in the isle of Réunion a second species of *Arachnura*, "couleur jaune claire, jaune citron."

Is *Arachnura* really a good genus, different from *Epeïra*, for instance? I believe it is so, and consider, with Vinson, its chief characteristic to be the long, transversely wrinkled or annulated *flexible tail*, into which its abdomen is drawn out behind: this tail, says Dr. Vinson, is "susceptible d'abaissement et d'élévation, et se recourbe également vers le dos ou vers le ventre."

Whether the Australian Spiders described by L. Koch under the names *Epeïra higginsii** and *E. feredayi*† belong to *Arachnura*, is uncertain, as Dr. L. Koch does not state whether the tail in these Spiders is cross-ringed or -wrinkled, as in the typical species. To judge from his figures, the tail is destitute of such wrinkles; but if *E. higginsii* and *E. feredayi* should prove in this respect to resemble *A. scorpionoides*, I should not hesitate to refer them to *Arachnura*, even though their lateral eyes are separated by a smaller interval than in *A. scorpionoides*. The small difference in the relative lengths of the legs (1, 2, 4, 3, or 1, 4, 2, 3) does not appear to me to be a hindrance to our uniting them with *Arachnura* and removing them from *Epeïra*, from which genus they differ in the absence of spines on the legs, also in this respect showing some resemblance to *A. scorpionoides*, which has spines only on the first pair (or first two pairs) of legs.

LATHRODECTUS GEOMETRICUS, C. Koch. (Plate XXV. fig. 4.)

Obscurius vel clarius nigro-vel rufescenti-fuscus, patellis et apice tibiaram late nigricantibus, cephalothorace fere dimidio brevior quam tibia primi paris, ordinibus oculorum extremitatibus non divaricantibus; abdomine secundum dorsum annulis angulatis tribus et vitta postica undulata geminata albicantibus notato, in lateribus fasciis 3-4 obliquis geminatis albicantibus ornato,

* Die Arachn. Australiens, p. 120, tab. xi. figs. 1-1b.

† Ibid. p. 122, tab. xi. figs. 2, 2a.

quarum apices superiores antice circa suam quisque muculam obscuriorem rotundatam plus minus distinctam curvati sunt; ventre ad maximam partem plaga flavescente, in medio constricta occupato; vulvæ margine antico tuberculum utriusque formante.

♀ ad. Long. 8–10 $\frac{1}{2}$ millim.

Var. β . Pallide fuscus, abdomine cinereo-testaceo, maculis illis ab apicibus superioribus fasciarum lateralium limitatis obscure fuscis vel nigricantibus, series duas laterales in dorso formantibus; præterea formæ principali similis.

1841. *Latrodectus geometricus*, C. Koch, Die Arachn. viii. p. 117, tab. cclxxxiv. fig. 684.

Fœmina. Cephalothorax 3 $\frac{3}{4}$ millim. longus, brevior quam tibia quarti paris, fere dimidio brevior quam tibia primi paris, tibiam cum dimidia patella secundi paris longitudine æquans, 3 millim. latus, latitudine longitudinem tibiæ secundi paris parum superans; forma in hoc genere solita, fovea ordinaria media magna profunda transversa, sulcisque cephalicis bene expressis; ferrugineo-fuscus, tenuiter pallide pubescens, antice pilis nigris sparsus. Sternum subtriangulum, parum longius quam latius, fuscum, linea media pallidiore notatum. Oculi subæquales, laterales antici tamen reliquis, præsertim mediis anticis, evidenter minores; in series duas parallelas dispositi, series antica leviter procurva, postica et antica desuperne visæ recurvæ; spatium inter oculos laterales paululo minus, saltem non majus, quam spatium inter oculos medios anticos et posticos; oculi laterales, inter se spatio oculi antici diametro dimidio majore disjuncti, a mediis ejusdem seriei intervallo hunc spatium æquante remoti sunt spatioque paulo majore, quam quo distant medii ejusdem seriei inter se. Area oculorum mediorum paululo latior postice quam antice, parum vel vix longior quam latior postice; spatium inter oculos medios anticos oculi diametrum vix æquat, intervallum inter medios posticos oculi diametro evidenter majus est. Clypeus, cujus altitudo longitudine areæ oculorum plus dimidio major est, mox sub oculos profunde est impressus, a latere visus subdeclivis et convexus. Mandibulæ longæ et angustæ, in dorso basi ipsa paululo convexæ, præterea vero rectæ, longitudine patellarum secundi paris, tibiis anterioribus angustiores, triplo et dimidio saltem longiores quam latiores, nitidæ, leviter transverse striatæ et pubescentes, pallide ferrugineo-fuscæ; unguis tenuis, parum curvatus, latitudinem basalem mandibulæ vix longitudine superans. Maxillæ fuscæ, apice intus pallidæ, in labium fuscum transversum antice rotundatum inclinatæ. Palpi testaceo-fusci, nigro-pilosi. Pedes testaceo-fusci, tenuiter pallido-pubescentes, nigro-pilosi. Pedes primi paris cephalothorace plus sextuplo longiores sunt, in exemplo dimenso 23 $\frac{1}{2}$ millim. longi (patella cum tibia 7 $\frac{1}{4}$, tibia 5 $\frac{1}{2}$ millim.); pedes secundi paris 16 $\frac{1}{2}$, tertii paris 12, quarti paris 22 (patella eorum cum tibia paululo plus 6, tibia 4 $\frac{1}{2}$) millim. longi. Abdomen globoso-ovatum, postice subacuminatum, tenuiter pubescens, obscurius vel pallidius rufescenti-fuscum; utrinque,

max supra petiolum, adsunt lineæ duæ albicantes inæqualiter retro et extrorsum curvatæ, postice fortiter divaricantes, antice interdum in maculam vel annulum dilatatæ; secundum medium dorsum extenditur vitta ex annulis albicantibus tribus subæqualibus et vitta geminata ejusdem coloris formata: annulus primus angulato-rotundatus est, secundus et tertius, spatio minuto tantum disjuncti, rhomboides; tum, cum annulo tertio conjuncta, sequitur vitta sat brevis (secundum circiter quartam partem posteriorem dorsi extensa), posteriora versus angustata, utrinque linea albicante undulata limitata. In lateribus utrinque adsunt fasciæ trinæ vel quaternæ obliquæ longæ, albicantes, apice superiore subrecurvo suam quæque maculam obscuram rotundatam antice amplectentes, mox sub hac macula subito postice dilatatæ, versus apicem inferiorem (posteriorem) sensim angustato-acuminatæ et vitta obscura subcuneata geminatæ. Venter versus latera obscurius vel pallidius fuscus, plaga magna flavescens, in medio leviter constricta notatus, quæ a rima genitali pæne ad mamillas extenditur; ad latera mamillarum binæ maculæ parvæ flavæ adsunt et (plerumque) inter eas maculæ trinæ parvæ nigricantes, his maculis coronam circum anum et mamillas formantibus. Area vulvæ elevata, transversa, nigro-fusca a latere visa tuberculum subconicum format, cujus in apice adest vulva sub specie foveæ vel rimæ transversæ sat parvæ: margo ejus posticus elevatus æqualiter procurvus est, integer (non in medio incisus), margo vero anticus in medio rectus, ad utramque extremitatem in lobum brevem retro directum productus, his lobis tubercula duo assimilantibus.

Mas ignotus.

Variat (β) *pallidior, fusco- vel cinereo-testaceus, abdomine pallide cinereo-testaceo, pictura ut in forma principali quidem, sed magis diluta, parum distincta, maculis illis obscuris exceptis, a quibus initium capiunt fasciæ laterales: hæ maculæ utrinque 4 nigro-fuscæ sunt et in series duas laterales valde manifestas ordinatæ (conf. figuram C. Kochii, loc. cit.). Vitta media postica in dorso abdominis interdum deest.*

Patria. Africa, America meridionalis. Exempla pauca fœminea possideo, alia in insula Madagascar (ad sinum Bombétoc) capta et a cel. Vinson communicata, alia ex Surinam, a cel. Van Hasselt missa. Var. β nostra eadem forma manifeste est atque *L. geometricus*, C. Koch; hoc nomen usurpavi, quum nullum aliud certum invenire potuerim; vix tamen est dubitandum quin sit hæc species etiam sub aliis nominibus descripta. Formam principalem secundum exempla Madagascariensia descripsi; var. β (cum forma principali) ex Surinam obtinui.

The females of *L. curacaviensis* (Müll.) may easily be distinguished from the above-described Spider by a darker, black or brownish black colour, by some small differences in the relative position of the eyes and in the form of the vulva, &c. (see Thor. Rem. on Syn. p. 511). The markings of the abdomen are also different, consisting in *L. curacaviensis* of a long, slightly sinuated, yellowish middle band, often geminated with reddish, and terminating at the anus in

a large yellowish or reddish spot; the sides have each four oblique, yellowish, sometimes geminated bands, of which one, commencing above the petiolum and curved forwards and downwards, is the longest and forms with the corresponding one of the other side, when seen from above, a very large \wedge , open at the apex; under this band is another smaller, almost longitudinal, and behind it two bands, tapering at the ends; but these markings are often more or less obliterated*.

LATHRODECTUS CURACAVIENSIS, Müll.

♂ ad. *Cephalothorace fusco-testaceo, vitta media et marginibus infuscatis, pedibus fusco-testaceis, apice internodiorum plus minus late nigricantibus, cephalothorace quam tibia primi paris circiter dimidio brevior; abdomine fusco, pictura flava nigro-marginata: secundum dorsum vitta media longa, supra anum in maculam rufescenti-flavam dilatata, in lateribus fasciis trinis obliquis; prima earum longa est, foras et retro curvata, et sub ea vitta parva conspicitur; reliquæ duæ magis rectæ sunt; par primum harum fasciarum desuperne inspectum \wedge magnum format; venter plaga magna flavescente antice truncata in medio leviter constricta notatus est.*

Long. circa $3\frac{1}{4}$ millim.

1776. *Aranea curacaviensis*, Müll. Linn. Vollständ. Natursyst. Suppl.- u. Reg.-Band, p. 342 (= ♀).

18—. *Theridion curassavicum*, Héring, conf. Ozanam, Étude s. le venin des Arachn. p. 29.

1860. *Latrodectus malmignattus*, var. *tropica*, Van Hass. Stud. over d. z. g. Curaçaosche Oranje-Spin, in Tijdschr. voor Entom. iii. p. 62, pl. 5. figs. 1-6 (= ♀).

1873. *Lathrodectus curacaviensis*, Thor. Rem. on Syn. p. 511 (= ♀).

Mas. *Cephalothorax* $1\frac{1}{2}$ millim. longus, brevior quam tibia primi et quarti paris, tibiam cum dimidia patella secundi paris longitudine circiter æquans, paullo longior quam latior, forma in hoc genere solita, fovea ordinaria centrali pone medium locata, magna et profunda, impressionibus cephalicis tribusque sulcis radiantibus utrinque in parte thoracica profundis quoque; testaceo-fuscus, vitta media longitudinali fuliginea, marginibusque late subinfuscatis. Clypei altitudo evidenter, pæne dimidio, major quam longitudo areæ oculorum mediorum. Sternum ovato-triangulum, antice late truncatum, obscurius fuscum, vitta media longitudinali subtestacea. Oculorum series antica procurva, ambæ series desuperne visæ recurvæ, extremitatibus non divaricantibus, sed paullo appropinquantibus: spatium inter oculos laterales paullo minus est quam spatium inter oculos medios anticos et posticos, et oculi lateralis diametrum æquat.

* The female of *L. curacaviensis* has been carefully described and figured by Van Hasselt (*loc. infra cit.*); the male, on the contrary, is still unknown, and a short description of a male example which Dr. Van Hasselt has kindly sent me will therefore probably not be considered out of place here.

Spatium inter oculos medios posticos diametro oculi non majus est, inter eos et laterales paullo majus. Area oculorum mediorum pæne quadrata, modo paullulo latior antice quam postice; oculi medii antici reliquis paullo majores, inter se paullo longius, spatio oculi diametrum fere aequante, quam a lateralibus anticis sejuncti. Mandibulæ testaceo-fusca, subreclinata, in dorso rectæ, versus apicem sensim subangustata, plus duplo longiores quam latiores basi. Maxillæ apice extus rotundata, testaceo-fusca, apice intus pallidiores, in labium transversum fuscum apice late rotundatum paullo inclinata. Palpi testaceo-fusci, breves; pars patellaris latitudine apicali vix vel parum longior, versus apicem sensim paullulo incrassata, apice oblique rotundata, ut pars femoralis basi metatarsorum anteriorum non crassior; pars tibialis parte patellari etiam brevior, supra, exterius, in lobum oblongum foras et sursum directum, interius vero in lobum brevem intus directum producta, his lobis parti tarsali arte adjacentibus et cum ea in clavam maximam, femore antico plus duplo latiore, antice latissime truncatam, semiorbiculatam vel campanulatam fere, extus et infra profunde et late excisam concretis; apex clavæ helice magna, plana, gyris saltem 3, e seta crassa longissima complanata nigra formata occupatur; ipsa pars patellaris dimidiam partem clavæ interiorem et superiorem tantum formare videtur et sulco longitudinali quasi in duas partes dividitur, interiorem majorem testaceo-fuscam, exteriorem angustiore, obscuriorem, ferrugineo-fuscam (hæc pars interior forsitan non ad partem tarsalem, sed ad bulbum pertinet?); angulus apicis partis tarsalis interior et inferior in procursum longum deorsum et paullo foras directum productus est, cujus apex ut lobus rotundatus et pilosus sub apice clavæ prominet; sub hoc lobo procursum tenuis pallidus deorsum curvatus adest. Pedes graciles, testaceo-fusci, patellis apice, tibiis annulo versus apicem et præterea summo apice nigricantibus, reliquis internodiis quoque apice anguste et plus minus distincte infuscatis. Tibiæ supra setas binas erectas ostendunt; præterea pedes pube et pilis nigris appressis minus dense vestiti sunt. Pedes primi paris cephalothorace circa $6\frac{1}{2}$ longiores, $9\frac{3}{4}$ millim. (tibia cum patella $2\frac{2}{3}$, tibia paullo plus 2), secundi paris 6, tertii $4\frac{1}{2}$, quarti $8\frac{1}{2}$ (tibia cum patella $2\frac{1}{2}$, tibia $1\frac{5}{6}$) millim. longi. Abdomen subovatum, pilis pallidis longioribus sparsum, cinerascenti-fuscum, vitta media longa flavescente per dorsum extensa et supra anum in maculam rufescenti-flavam leviter dilatata ornatum, in lateribus vero fasciis duabus longis flavis deorsum et retro curvatis, supra petiolum initium capientibus, posteriora versus valde divaricantibus, \wedge magnum, quum desuperne inspicitur cephalothorax, formantibus, et sub utraque earum, antice, vitta parva fere longitudinali notato, magis vero postice fasciis binis transversis obliquis flavis, omnibus his vittis et fuscis anguste nigro marginatis. Venter nigricans, plaga magna media flavescente antice truncata, in medio leviter angustata.

Fœminæ diagn. et descr. vid. in Van Hasselt, loc. cit.

Patria hujus speciei America meridionalis (Curaçao, Aruba, Bonaire, et cet.). Locum, ubi inventus fuerit mas supra descriptus, ignoro.

Respecting the habits and supposed venomousness of this Spider, conf. Ozanam, and especially Van Hasselt, *locis cit.*

HETEROPODA? VIRIDIS (Vins.).

1863. *Olios viridis*, Vins. Aran. de la Réunion. *cet.* p. 103, pl. xi. fig. 2.

Of this species only one female example (from Madagascar) was received; it appears to be not fully adult, which may account for a few differences between Vinson's description and what I have observed. The beautiful pale-green colour of living specimens is, as has been remarked by Dr. Vinson, totally lost when the animal is placed in spirit of wine; it then becomes of a dull brownish yellow, with the slightly incrassated tarsal joint of the palpi brownish black, only a little paler at the base and apex. The cephalothorax is 4 millims. long and 4 millims. broad; it is tolerably high and rather convex above, being highest just behind the base of the second pair of legs, sloping gradually and slightly towards the eyes; the hind slope is shorter and more abrupt. The cephalic grooves are faint; the hind slope has a longitudinal, rather strong, central groove, about as long as the mandibles. The height of the clypeus nearly equals the diameter of the fore central eyes. The eye-series are almost perfectly parallel, the anterior nearly straight, very little curved forwards; the posterior series, seen from above, is straight and longer than the anterior; the fore lateral eyes are evidently larger, the hind centrals smaller than the other eyes. The area occupied by the central eyes is somewhat larger behind than in front, scarcely shorter than broad behind. The anterior central eyes are separated by an interval about as great as the diameter of an eye, and a little greater than the interval which separates them from the anterior laterals. The eyes of the posterior row are equally distant from each other, their interval being about twice as great as the diameter of the posterior lateral eyes. The lateral eyes are nearly equal; their interval is about once and a half the diameter of an eye, and little or nothing smaller than the interval between the fore and hind centrals. The mandibles are $1\frac{1}{2}$ millim. long (= patella of the fourth pair), double as long as broad, nearly as thick as the fore thighs, rather equally convex longitudinally, shining, reddish yellow, with long, rather scarce, pale hairs; the anterior margin of the claw-furrow is thickly ciliated, the posterior armed with about five small teeth, of which the two inner are the longest. The maxillæ are convex, scarcely half as long again as broad, somewhat narrowed towards the base, with both the exterior and interior side of the apex truncatedly rounded; they are very slightly inclined towards the labium, which is not half as long as the maxillæ, at least double as broad as long, with the apex broadly rounded. The first pair of legs are 19 millims. long (patella + tibia $6\frac{3}{4}$, tibia 5), second pair $19\frac{1}{2}$, third pair 13, fourth pair 16 millims. (their patella + tibia $5\frac{1}{2}$, tibia nearly 4 millims.). The legs

are armed with tolerably numerous spines, which are very long and appressed on the underside of the tibiæ and metatarsi: the thighs of the first pair of legs, for instance, have above 1, 1, before and behind 1, 1, 1, beneath 2, 2 spines; their patella has one spine behind, the tibia and metatarsus before and behind 1, 1, beneath 2, 2 spines, the tibia, moreover, one spine above. The tarsi are fusiform, convex longitudinally above; their underside, like that of the anterior metatarsi, is provided with a scopula.

This species must probably be removed from *Heteropoda* (Latr.), Thor.* (of which genus *Aranea venatoria*, Linn., *Olios leucosios*, Walck., is typical), and should perhaps be made the type of a separate genus.

PHRYNARACHNE † FOKA (Vins.).

1863. *Thomisus foka*, Vins. Aran. de la Réunion, *cet.* p. 69, pl. xiv. fig. 4.

1865. *Thomisus foka*, Vins. Voyage à Madagascar, p. 186, pl. iv. fig. 3.

It is very uncertain whether this species be the true "foka" or "fook" of the natives of Madagascar; as to their opinions regarding the venomousness of that redoubted Spider *vide* Vinson, Aran. de la Réunion, &c. p. 71. But in his letter to me Dr. Vinson says:—"Depuis mon voyage à Madagascar, j'ai des doutes sur les qualités vénéneuses qu'on prête à cette araignée. Je l'ai trouvée à la Réunion (la même) fort inoffensive. La fameuse Foka ou Fouque, comme disent les Malgaches, serait le fameux *Eresus guérinii* qui habite aussi l'Algérie. C'était ma première opinion par analogie de contrée et de voisinage géographique, et j'y reviens. Je n'ai pu jusqu'à présent toutefois approfondir cette question."

The specimen sent me by Dr. Vinson, an adult female, is from Madagascar. Its colour is dark reddish brown, with exception of the tibiæ, metatarsi, and tarsi, and the tibial and tarsal joints of the palpi, which parts are of a bluish black colour. The structural details contained in the following description may in some degree serve as a complement to that given by Dr. Vinson.

Fœmina. *Cephalothorax* pæne 6 millim. longus, $5\frac{1}{2}$ millim. latus, tibiam cum patella primi paris longitudine saltem æquans, lat. frontis leviter rotundata $2\frac{3}{4}$ millim., lateribus partis thoracicæ fortiter et ample rotundatis; margine postico emarginato; altissimus, a medio anteriora et posteriora versus satis æqualiter declivis, declivitate postica nitida, fere lævi, fovea media rotundata mediocri, parum profunda; præterea tuberculis magnis et parvis undique valde inæqualis et scaber, tuberculis majoribus plerisque partis cephalicæ in ordines longitudinales tres minus æquales ordinatis, impressionibus cephalicis parum expressis; clypeus scaber et tuberculatus, non directus, sed cum mandibulis

* On Eur. Spid. pp. 174, 177.

† *Phrynarachne*, Thor. 1869, = *Phrynoides*, Sim., 1864 (*vide* Thor., On Eur. Spid. pp. 37, 182). [*Phrynoidis*, Fitz. (Reptil.), 1843.]

proclivis, longitudinem areæ oculorum mediorum altitudine non æquans. Sternum ovatum, pæne dimidio longius quam latius, antice leviter emarginatum, tuberculis minutis suum quoque pilum gerentibus obsitum. Oculorum series antica fortius, postica levius recurva; oculi laterales antici reliquis fere duplo majores, oculi medii postici evidenter sed non multo minores quam laterales postici et medii antici, qui fere æquales sunt. Area oculorum mediorum pæne quadrata, paullulo modo latior postice quam antice et æque longa atque lata antice. Oculi antici medii spatii fere æqualibus inter se, a mediis posticis et a margine clypei disjuncti, his spatii oculi medii antici diametro circiter quadruplo majoribus, et evidenter sed non dimidio majoribus quam spatium quo a lateralibus anticis remoti sunt medii antici. Oculi medii postici paullulo longius inter se quam a lateralibus posticis distant; intervallum inter oculos laterales circiter dimidio minus est quam spatium inter medios anticos et posticos, vel inter posticos medios et laterales, sed paullo majus quam spatium inter anticos medios et laterales. Quum oblique a latere et ab antice inspicitur cephalothorax, oculi laterales cum oculo medio antico ejusdem lateris lineam rectam designant. Mandibulæ versus apicem sensim angustatæ, subconicæ, $2\frac{1}{4}$ millim. longæ, fere duplo longiores quam latiores basi, a latere visæ angulato-convexæ, latere exteriori ad basin in costam elevato, dorso ad basin exterius in formam fere trianguli subplano et tuberculis minutis tantum scabro; præterea vero in dorso tuberculis majoribus et minoribus inæquales et scabræ sunt mandibulæ pilisque brevioribus sparsæ; sulcus unguicularis antice dentibus paucis parvis armatus et dense ciliatus; unguis parvus, longitudine latitudinem apicis mandibulæ vix superans. Maxillæ parallelæ, vix in labium inclinatæ, longæ et angustæ, saltem duplo longiores quam latiores, in latere exteriori leviter sinuatæ, apice extus rotundatæ, apice intus late et oblique truncatæ. Labium maxillis duplo brevius, paullulo longius quam latius basi, ovato-triangulum, apice obtuso. Pulpi metatarsis anticis paullo angustiores, superficie inæquali et scabra, aculeati et pilosi, parte tibiali vix longiore quam patellari, dimidio longiore quam latiore; pars tarsalis versus apicem sat fortiter angustata, subacuminata, parte priore plus dimidio longior. Pedes valde robusti, præsertim anteriores, inæquales valde et scabri, coxis subter fere levibus, nitidis, aculeis brevibus armati, aculeis subter in tibiis et metatarsis paullo longioribus et fortioribus. In tibiis anterioribus aculei inferius utrinque binas series formant. Unguiculi tarsorum versus basin dense pectinati. Pedes primi paris 16 millim. longi (patella cum tibia $5\frac{1}{2}$, tibia 3 millim.); secundi paris iis parum breviores; quarti paris, qui tertii paris pedibus paullo longiores sunt, $10\frac{1}{2}$ millim. longi (patella cum tibia $3\frac{3}{4}$, tibia 2 millim.). Abdomen subpentagonum, antice subtruncatam, posteriora versus sensim paullo dilatatum, versus anum rursus subito et fortiter angustatum, subacuminatum, cute dura valde inæquali et rugosa tectum: latera ejus in tubercula magna vel quasi mammulas

elevata sunt, quæ inferius minora sunt quam supra: præterea supra et in lateribus tuberculis humilibus sparsum est, quæ vel rotunda vel oblonga sunt, sulco suo quodque circumdata, in dorso, ubi pleraque in series duas longitudinales undulatas ordinata sunt, nitida, læviora, in mammulis magnis lateralibus magis scabra et inæqualia. Supra anum rugas aliquot transversas ostendit abdomen. Vulva valde simplex: ex fovea parva constare videtur, quæ antice callo nitido subprocurvo limitatur. Mamillæ posticæ anticis longiores, articulo primo cylindrato, paullo longiore quam latiore, secundo parvo; mamillæ anticæ crassiores sunt quam posticæ, subconicæ, articulo primo multo breviora quam latiore basi; mediæ reliquis multo angustiores, anticæ longitudine pæne æquantes.

Patria. Iuss. Madagascar et Réunion.

MISUMENA VINSONII, n. sp.

Cephalothorace rufescenti-fusco, granulato, posterius fortiter elevato, longitudine patellam, tibiam et metatarsum quarti paris conjunctim æquante; oculis lateralibus tuberculo obtuso impositis; pedibus cum palpis testaceis, metatarsis apice cum tarsis infuscatis, tantum subter in tibiis et metatarsis aculeis brevissimis armatis; abdomine subpentagono, flavescente, in lateribus ad longitudinem, postice vero transverse rugoso, his rugis nigro-punctatis, supra punctis 5 majoribus nigris notato.

♀ adult. (?) Long. circa 10 millim.

Fœmina. Cephalothorax æque latus atque longus, 4½ millim., patellam + tibiam + metatarsum quarti paris longitudine æquans, lateribus partis thoracicæ fortiter et amplissime rotundatis, antice sensim (et sinu levi mox pone oculos) unguistatus, fronte leviter rotundata, 2½ millim. lata, margine postico leviter rotundato et in medio paullo emarginato; pone medium altus valde, pæne gibbosus, a latere visus dorso anteriora versus ad oculos secundum lineam leviter concavo-curvedam sensim proclivi, postice secundum lineam pæne rectam, modo levissime arcuato- (convexo-) curvatam declivi, hac declivitate postica sat longa et prærupta, fere plana, lævi et nitida, fovea media ovata sat magna; præterea granulatis parvis nitidioribus sat densis scaber est cephalothorax, impressionibus cephalicis parum expressis, rufescenti- vel testaceo-fuscus, fascia transversa clariore subtestacea inter oculos; oculi laterales bini tuberculo obliquo obtuso impositi (hoc tuberculo non acuminato neque in spinam producto); clypeus fere directus, altitudine dimidiam aræ oculorum mediorum longitudinem non multo superans. Sternum subovatum, antice leviter truncato-emarginatum, subtestaceum. Area oculorum triangulum antice truncatum format fere; series antica fortiter recurva est, postica, desuper visa, leviter modo recurva; oculi laterales antici reliquis oculis non parum majores sunt, medii postici paullo minores quam laterales postici, qui pæne æque magni sunt atque medii antici. Area oculorum mediorum rectangula,

circa $\frac{1}{4}$ longior quam latior; oculi medii antici vix vel parum longius inter se quam a lateralibus anticis remoti, hoc intervallo oculi medii diametro circiter quadruplo majore; medii antici longius a mediis posticis quam a margine clypei remoti; oculi laterales intervallo disjuncti, quod paullo minus est quam spatium inter oculos anticos laterales et medios, et pæne duplo minus quam spatium inter medios anticos et posticos; oculi medii postici paullo longius a lateralibus posticis quam inter se distantes. Mandibulæ longitudine tibiam quarti paris (patellis anterioribus breviores) basi tibiam primi paris crassitie saltem æquantæ, versus apicem sensim angustatæ, tamen apice sat late truncatæ, non in margine exteriori sinuatæ, in dorso sat fortiter convexæ, ipsa basi fere planæ, ibique in latere exteriori subelevato-marginatæ; tenuiter rugulosæ et transverse substriatæ, pilis brevibus sparsæ, rufescenti-fuscæ, apice intus longius pilosæ, marginibus sulci unguicularis dense ciliatis; unguis brevis, fortiter curvatus. Maxillæ longæ et angustæ, plus duplo longiores quam latiores, in latere exteriori leviter sinuatæ, apice rotundatæ, testaceæ, in labium iis pæne duplo brevius, oblongum, in lateribus leviter rotundatum, versus apicem rotundato-acuminatum sensim angustatum leviter inclinatæ. Palpi breves, crassitie metatarsorum, aculeis brevibus sparsi, pilosi, testacei; pars tarsalis versus apicem obtusum sensim angustata, parte tibiali vix dimidio longior. Pedes testacei, metatarsis apice late cum tarsis infuscatis; anteriores longi et fortes; omnes granulis parvis, suum quoque pilum brevem appressum gerentibus dense scabris, remanentibus tamen supra in femoribus, patellis, tibiis et metatarsis (saltem ad partem) vittis binis sat latis lævibus. Femora et patellæ omnes, ut tibiæ et metatarsi posteriores, aculeis carere videntur; tibiæ anteriores subter versus apicem aculeos paucos, omnium brevissimos, in series binas ordinatos habent, metatarsi anteriores subter series duas in medio abruptas aculeorum brevium nigrorum ostendunt, circiter 6 in utraque serie. Tarsi anteriores versus apicem late truncatum sensim paullo incrassatæ. Pedes primi paris 16 millim. longi (patella cum tibia $5\frac{1}{2}$, tibia $3\frac{1}{5}$ millim.); secundi paris fere $15\frac{1}{2}$, tertii 8, quarti paullo plus 9 millim.; patella cum tibia quarti paris 3, tibia pæne $1\frac{2}{3}$ millim. Abdomen subpentagonum, postice utrinque subangulatum; antice truncatum est, tum lateribus subrectis ad circa $\frac{2}{3}$ longitudinis gradatim paullo dilatatum, deinde lateribus leviter rotundatis angustato-acuminatum, hac parte postica rotundato-declivi; circa $5\frac{1}{2}$ millim. longum et latum, in lateribus ad longitudinem, in declivitate postica transverse sat dense sulcatum, his sulcis punctis nigris impressis sat densis, hic illic in lineis confluentibus, notatis; dorsum punctis ejusmodi minutis sparsum est, anterieus vero et in medio puncta 5 majora nigra ostendit, quarum 4 posteriores in rectangulum subtransversum ordinatæ sunt; ad ipsum marginem anticum series transversa punctorum ejusmodi parvorum adest. Venter

subtestaceus, basi nigricans; loco vulvæ callus transversus ferrugineo-fuscus adest. Mamillæ posticæ cylindratae, multo angustiores et paullo longiores quam anticæ, quæ crassæ et conicæ sunt; mamillæ mediæ fere duplo angustiores et breviores quam posticæ.

Mas ignotus.

Patria. Madagascar, ubi hanc speciem detexit cel. Alf. Grandis.

This species is no doubt closely allied to *Thomisus tripunctatus*, Lucas*; but I do not think that it is identical with that West-African species. In *Th. tripunctatus*, according to Lucas, the cephalothorax is prolonged on either side anteriorly (between the lateral eyes) into "a very sharp spine," the mandibles are constricted or sinuated on the outer side towards the apex, and the third pair of legs are longer than the fourth pair &c., which is not the case in the above-described Spider from Madagascar, kindly sent me by Dr. Vinson.

In naming this Spider after Dr. Vinson I only utter a feeble expression of my respect for his scientific merits and my thankfulness for the kindness he has shown me.

PEUCETIA LUCASII (Vins.).

1863. *Sphasus lucasii*, Vins. Aran. d. îles de la Réunion. p. 35, pl. xiii. fig. 3.

The colour of this beautiful Spider is much changed in examples preserved in spirit of wine; the cephalothorax is of a dull and pale olive-green colour, the *pars cephalica* being limited posteriorly by a large \checkmark of a paler yellowish tint. The legs are yellowish brown, somewhat paler towards their base, brownish black at the extremity; the trochanters are blackish; the thighs and patellæ have a narrow blackish ring or spot at the apex. The abdomen is greenish, with a brownish band along the middle of the back; this band is limited on either side by a whitish band or line, which anteriorly, towards the base of the abdomen, is continued by a series of about four unequal, somewhat oblique, whitish spots. The olive-greenish belly shows two longitudinal yellow bands or lines, the space between these bands being of a darker brownish tint. The two small fore eyes are separated from each other (and from the large middle eyes) by an interval equalling their diameter; the interval between the large (fore) middle eyes is evidently greater than their diameter, but scarcely greater than the interval between them and the hind lateral eyes. The area of the four central eyes is about one fourth larger in front than behind, as long as broad in front; the fore central eyes are separated from the hind centrals by an interval about double as great as the diameter of the largest eyes. The hind series of eyes is slightly curved forward; these eyes are nearly of the same size (the centrals, however, slightly larger than the laterals), and are separated by nearly equal intervals, at least as great as the diameter of the hind centrals. The height of the clypeus is somewhat greater than

* Descr. d. Arachn. qui habitent le Gabon (Voyage au Gabon), in Thomson, Archives Entomol. ii. p. 24, pl. xii. figs. 3, 3a.

the length of the whole eye-area. The form of the vulva is very complicated; this organ consists chiefly of a large, broad, almost triangular or heart-shaped, corneous, slightly elevated, uneven blackish area, the base of which is directed forwards; this area shows a longitudinal furrow in the middle, and two other shorter and oblique ones on each side: in front the vulva is limited by a raised margin curved backwards; and in the almost half-moon-shaped space between this margin and the base of the triangular area are two corneous obtuse teeth proceeding from the angles, and directed inwards and forwards. The two examples seen by me are females. In the larger of them the length of the cephalothorax is $6\frac{1}{2}$ millims., its breadth $5\frac{3}{4}$ millims., breadth of forehead (clypeus) 3 millims., height of clypeus $1\frac{2}{3}$ millim.; length of mandibles 3 millims.; first pair of legs 32 millims. (patella + tibia $10\frac{1}{2}$, tibia $8\frac{1}{4}$), second pair 29, third pair 22, fourth pair 24 (patella + tibia $7\frac{3}{4}$, tibia 6) millims.; length of abdomen $11\frac{1}{2}$, breadth $5\frac{1}{4}$ millims.

From Madagascar.

EXPLANATION OF PLATE XXV.

- Fig. 1. *Nephila labillardieri* ♀, p. 130. Cephalothorax and abdomen, seen from above.
 2. *Nephila labillardieri* ♀, var. β.
 3. *Epeira cupidinea* ♀, p. 135.
 4. *Lathrodictus geometricus* ♀, p. 138. Abdomen, seen in profile.

6. Descriptions of some supposed new Species of Birds from the Fiji Islands. By E. L. LAYARD, F.Z.S., H.B.M.C. administering the Government.

[Received February 24, 1875.]

1. LALAGE NIGROGULARIS, sp. nov.

General colour above brown, below cinereous; top of head cinereous; each feather having a pale edge, presents a slightly scaled appearance; wing-feathers brown, inner webs darkest, outer webs slightly tinged with greenish yellow on the outer edge; tail-feathers in strong light closely barred; covering the nostrils is a patch of black extending into a broadish eyebrow: this coalesces with the black of the throat behind the ear, which is covered by a large white patch; above the black eyebrow a faint whitish streak; chin and upper portion of throat black, this separated from the cinereous of the underparts by a broken, irregular, white band; vent and under tail-coverts whitish, tinged with isabella colour; underside of wing- and tail-feathers paler than the upper, the latter much paler at the tips; upper edge of the wing inside deep black; axillaries whitish; bill and legs blue, changing into black after death; iris brown. Length 8", wing 4" 1"', tail 3" 9"', tarsi 1" 1"', bill 1" 2'''.

This description is taken from a male in full breeding-plumage, testes well developed, shot on the 16th of November, on the hills at the back of Levuka. The natives to whom it was shown did not know

it, and had no name for it. Another, probably the female, was in company with it; but before the gun could be recharged it made off. Its stomach contained insects, which its strong hooked bill eminently fits it to capture and tear in pieces. Its resemblance in this respect is so Shrike-like that Mr. Kleinsmidt, a gentleman whose name is well known in connexion with Fijian zoology, exclaimed, at the first glance, "It is a Shrike."

I have no description of the genus *Lalage*, and therefore place it therein with some hesitation; but I know not where else it can be located, and its general appearance seems to tally with the form of *L. banksiana*, figured in Brenchley's 'Cruise of the Curaçoa.'

2. TATARE? VIRIDIS, sp. nov.

Male. General colour throughout uniform olive-green, tinged with yellow; inner webs of primaries very dark green, outer webs golden green; shafts of wing- and tail-feathers black above, pale yellow below; underside of wing pale buff; plumage somewhat lax; tail-feathers pointed; first quill of wing half the length of third, second quill much shorter than the third, which is shorter than the fourth; fourth, fifth, and sixth equal; seventh and others succeeding graduated. Bill and legs light orange, the former much curved, the latter strong, broadly scutellated in front, none behind. Length 10"; wing 5" 2"; bill 1" 10"; tarsi 1" 6". Claws dark horn-colour, much curved.

This singular bird, of which the native name is *Toti*, was procured in the mountain-regions of Taviuni, one of the Fiji Islands, by Lieut. Liardet, late of H.M. Navy. He describes it as "*creeping*" about the trunks of trees. Another was in company, but escaped. Iris deep red; tongue long, brushed at the tip.

3. PACHYCEPHALA TORQUATA, sp. nov.

Male. Back, wings, and tail very dark, almost black, shaded with green on the outer edges of all the wing-feathers and back; tip of tail pale; head above black; all the underparts of body and flexure of wing bright orange; the gorget crossed by a broadish crescent-shaped black collar; at the back of the neck or nape an indistinct (specimen badly preserved) orange collar; underside of wings and tail lighter than above, the inner edges of the secondaries buff; tip of tail pale; bill black; legs horn-brown. Length (circa) 7"; wing 3" 10"; tail 3"; tarsi 1"; bill 1 1/2".

Female. Red-brown above, much paler beneath; chin rufous; edges of wing-feathers and vent rufous.

Shot in the mountains of Taviuni by Lieut. Liardet. Described as very quick in its motions and restless, always on the move. Its native name is *Kula-oso*. *P. vitiensis* is similar in its habits.

4. PACHYCEPHALA MACRORHYNCHA, sp. nov.

General colour throughout reddish brown, paler on the underside, palest on the chin, reddest about the rump; tip of tail pale; bill very large, black; legs bluish. Length (circa) 7"; wing 3" 6"; tail 3"; bill 1" 2"; tarsi 10". Iris dark brown. Sex unknown.